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# Exhumation of the Lesser Himalaya of Northwest India: Zircon U-Pb and (U-Th)/He constraints and implications for the Neogene seawater evolution

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# Exhumation of the Lesser Himalaya of Northwest India: Zircon U-Pb and (U-Th)/He constraints and implications for the Neogene seawater evolution

**by**

**Cody Lee Colleps, B.S.**

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# Dedication

Dedicated to Granddad, for this would not have been possible without his never ending love and support throughout my entire life.

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# Abstract

## Exhumation of the Lesser Himalaya of Northwest India: Zircon U-Pb and (U-Th)/He constraints and implications for the Neogene seawater evolution

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The University of Texas at Austin, 2016

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The kinematic and exhumational evolution of the Lesser Himalayan (LH) of Northwest India remains a topic of debate; the resolution of which may provide insight into the relationship between the weathering of chemically distinct Himalayan source rocks and observed shifts in global seawater chemistry. Two contrasting models have been proposed to explain the origin of the now southward dipping Tons Thrust, which separates the LH into the inner Lesser Himalaya (iLH) of late Paleo-Mesoproterozoic rocks and the younger outer Lesser Himalaya (oLH) of low grade Cryogenian to Cambrian metasedimentary rocks. The initial exhumation of Cambrian black shales of the oLH anomalously enriched in $^{187}Os$ has been proposed to drive a rapid increase in global seawater $^{187}Os/^{188}Os$ at ~16 Ma, thus testing these contrasting tectonic models is critical to elucidate this proposed relationship. While one model suggests that the Tons Thrust shared an original decollement with the South Tibetan Fault System and that the oLH is a far-traveled klippe emplaced against the iLH during the Eocene-Oligocene prior to out-

of-sequence activation of the Main Central Thrust (MCT), a second model suggests that the oLH is a short-traveled, in sequence thrust sheet emplaced in the Late Miocene, post-dating movement along the MCT. Given the temporal discrepancy for oLH emplacement of at least 14 Myrs and broad constraints on the thermal history of the oLH, iLH, and MCT hanging wall, zircon (U-Th)/He (ZHe) thermochronology can effectively be used to test these hypotheses and reconstruct the exhumational evolution of the LH. New bedrock and foreland basin ZHe data support the short-traveled oLH model and provide direct evidence for rapid exhumation and southward advancement of thrusting away from the Main Central Thrust (MCT) to the Tons Thrust starting at ~16 Ma, resulting in a shift in exhumation to LH strata highly enriched in Os and relatively less in Sr compared to MCT hanging-wall rocks. This shift in exhumation directly corresponds to coeval shifts in global $^{187}Os/^{188}Os$ and $^{87}Sr/^{86}Sr$ seawater records. While these seawater records are commonly utilized as deep-time proxies to track global silicate weathering intensity responsible for $CO_2$ drawdown and climatic cooling, our data, coupled with mass balance box-modeling, indicates that regional weathering of isotopically unique source rocks can drive these seawater records independently from shifts in global-scale weathering rates, consequently hindering this utility of these records.

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# Introduction

The Himalayan-Tibetan Plateau orogenic system marks the first-order expression of ongoing continent-continent convergence between the Indian and Eurasian plates with collision initiating between 50-55 Ma, resulting in the southward verging Himalayan fold and thrust belt and its associated peripheral foreland basin at the southernmost part of the system (Figure 1). With its extreme crustal deformation, high variation in topography, and intense monsoonal precipitation, the Himalayan fold and thrust belt marks a unique setting to study and better understand the feedbacks between spatiotemporal patterns of mountain belt deformation and climate-driven erosion. These dynamic feedbacks have motivated work to establish how much of a global impact the Himalayan orogenic system has on a number of Earth systems since collision initiated.

While the geologic evolution of the Himalaya has been well documented, particularly in Nepal and within the Greater Himalayan sequences, the thermal and kinematic history of the Lesser Himalaya, especially the Lesser Himalaya of northwest India, is not as well known. As a result, a rather biased kinematic evolution exists for the Himalaya of northwest India, which lacks important thermochronometric timing constraints. Given modern efforts to constrain and document the stratigraphy of the Lesser Himalayan strata in northwest India, it is now possible to confidently sample and test contrasting kinematic models of thrusting within the frontal Himalayan system. Resolving the kinematic and exhumational evolution of the frontal thrust system of

northwest India also has important implications in constraining the principal drivers of Neogene isotopic seawater records.

Lesser Himalaya strata preserved in northwest India are isotopically enriched in radiogenic Osmium, and the onset of exhumation of these distinct source rocks have been proposed to drive observed shifts in the Neogene $^{187}Os/^{188}Os$ seawater record. $^{187}Os/^{188}Os$ and $^{87}Sr/^{86}Sr$ seawater records are commonly utilized as proxies to track global-scale weathering responsible for variations in atmospheric $CO_2$, such that these records are driven by temporal shifts in global silicate weathering intensities. However, there is a well-documented potential for regional influence on seawater Os and Sr isotope records, such that these records are driven independently from silicate weathering intensities by shifts in weathering substrates to anomalous, isotopically enriched sources. However, despite this well documented relationship, these records are still utilized as proxies to track global silicate weathering intensities. We attempt to provide a temporal link between observed shifts in these seawater records and the initial unroofing of isotopically enriched source rocks by focusing on the frontal thrust system of northwest India and directly constraining the exhumational evolution of anomalous, isotopically enriched Himalayan source rock. These temporal constraints are necessary to elucidate this relationship between regional source rock weathering and observed shifts in Cenozoic seawater chemistry.

This thesis is divided into two chapters; each written in a journal article format which will be submitted for publication as two separate manuscripts. The first chapter

focuses on the kinematic and exhumational evolution of the Lesser Himalaya of northwest India and presents all geochronologic and thermochronologic data collected for this project. This chapter couples new zircon U-Pb and (U-Th)/He results from both bedrock samples and foreland basin samples to unravel the Miocene tectonic evolution of northwest India. A total of 57 bedrock samples were analyzed for zircon (U-Th)/He ages, and 17 bedrock samples were analyzed for detrital zircon U-Pb age populations. A total of 15 foreland basin samples were analyzed for detrital zircon U-Pb age populations, and of these 15 samples, 4 were selected for detrital zircon (U-Th)/He age populations using the U-Pb-He double dating technique. The second chapter utilizes these data and the exhumational evolution constrained in the first chapter to focus on how the weathering of anomalous, isotopically enriched Himalayan source rock is dependent on kinematic shifts in the thrust evolution and how these shifts in weathering substrates drive observed shifts in the global Neogene $^{187}Os/^{188}Os$ and $^{87}Sr/^{86}Sr$ isotopic seawater records.

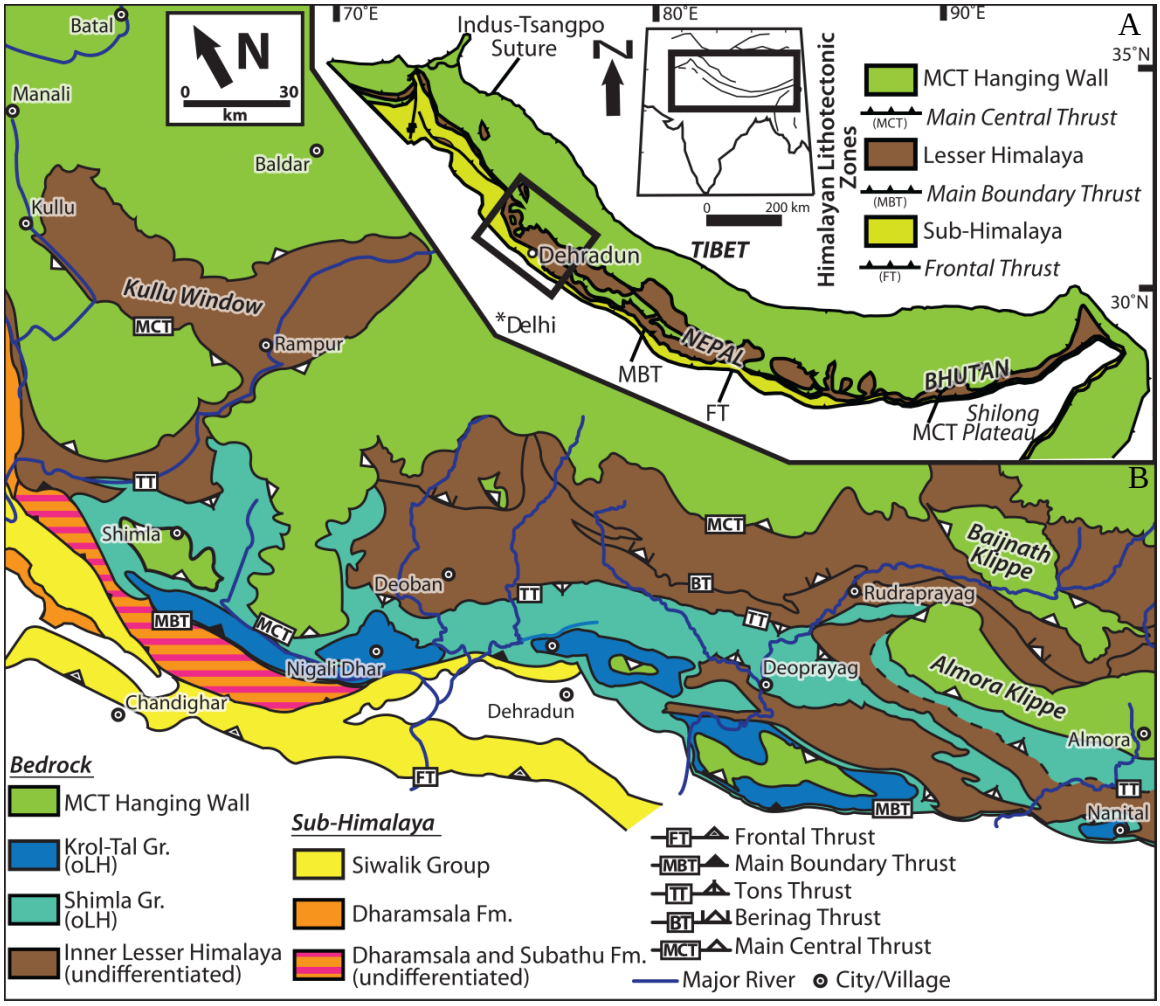


Figure 1: A.) General geologic map of the Himalayan Orogen with the area of focus in northwest India highlighted. B.) Simplified geologic map of the Himalaya of northwest India. Modified from Myrow et al. (2015).

# Chapter 1: Zircon (U-Th)/He and U-Pb constraints on the kinematic evolution of the Lesser Himalaya of Northwest India

## INTRODUCTION

A thorough thermo-kinematic understanding of the orogenic evolution of the Himalaya is critical in order to comprehend the dynamic interaction of fold and thrust belt kinematics and climatically induced erosion. Because the vast majority of thermochronomentric investigations have focused on the Greater Himalaya Crystallines in the core of the orogen (see reviews by Yin (2006) and Kohn (2008)), current Himalayan kinematic and dynamic models are largely biased and lack necessary constraints on the lesser studied Lesser Himalaya (LH) sequence. The LH of northwest India have been well studied and well constrained stratigraphically (Valdiya, 1980; Ahmad et al., 2000; Jiang et al., 2002; Hughes et al., 2005; Richards et al., 2005; Celerier et al., 2009; McKenzie et al., 2011), but thermochronometric constraints from these rocks are lacking. Recent efforts have been made to account for this issue (e.g., Thiede et al., 2004; Celerier et al., 2009a,b; Deeken et al., 2011), but the thermochronometric record of the LH still remains incomplete, especially in low-grade metasedimentary rocks within Neoproterozoic-Cambrian aged outer Lesser Himalaya (oLH) strata in northwest India.

This study presents new zircon (U-Th)/He thermochronometric dates and detrital zircon U-Pb analyses from bedrock samples collected across the LH of northwest India from the Kullu-Rampur window in the west to Lansdowne in the east, and tests two contrasting models for the kinematic evolution of the Himalaya in northwest India. These data, coupled with new detrital zircon U-Pb and detrital zircon (U-Th)/He ages from the

foreland basin presented here, allows for a comprehensive understanding of thrust belt kinematics necessary to reconstruct a model for Miocene exhumation of LH strata within northwest India. Resolving the kinematic and exhumational evolution of the Himalaya of northwest India is a critical step in linking major structures and stratigraphic sequences observed here to those to the east in Nepal, and the results presented here provide insight into the dynamic interaction between Himalayan tectonics, physical and chemical surficial processes, and climate as discussed in detail in Chapter 2.

## GEOLOGIC OVERVIEW

### Tectonostratigraphic Zones across Himalayan Orogen

The Himalayan fold and thrust belt and peripheral foreland basin system marks the southernmost extent of the Himalayan continent-continent orogenic system with collision imitating between 50-55 Ma. From south to north, the Himalayan thrust belt is divided into four tectonostratigraphic zones: the Subhimalaya sequence (SH) of Cenozoic foreland basin deposits, the Lesser Himalaya sequence (LH) of low-grade Proterozoic to Cambrian metasedimentary rocks, the Greater Himalaya (GH) sequence of higher grade metamorphic rocks, and the Tethyan Himalayan sequence (TH) of Proterozoic to Eocene sedimentary and metasedimentary rocks (Yin, 2006). These sequences are bounded by major orogen-scale fault systems that are near continuous along the entire length of the Himalayas. The Frontal Thrust (FT) marks the southernmost extent of the Himalayan fold and thrust belt and includes exposed Cenozoic foreland basin deposits of the SH in its hanging wall. The SH is bounded to the north by Main Boundary Thrust (MBT),

followed by the Main Central Thrust (MCT) that bounds the LH to the North. The structural distinction of the GH has traditionally been recognized as the hanging wall to the MCT below and footwall to the South Tibetan Detachment (STD) above, which separates the GH from the TH (Yin and Harrison, 2000; DeCelles et al., 2001). This distinction has since been challenged due to recognition of a branch line that joins the STD with the MCT across the southern Himalaya such that the TH is juxtaposed above the GH along the STD in the Northern Himalaya, whereas the TH occurs directly above the LH along the MCT in the southern Himalaya (Yin, 2006; Webb et al., 2007, 2011a, 2011b; Yu et al., 2015; He et al., 2015). For this reason, we refer to MCT hanging wall rocks as containing both TH and GH rocks when discussing the Miocene tectonic evolution presented here. The Indus-Tsangpo Suture zone (ITS) bounds the TH to the north, marking the boundary between the Indian and Eurasian plates (Yin, 2006). This study focuses extensively on the LH of northwest India and the Tons Thrust, which separates the LH into the inner Lesser Himalaya (iLH) and the outer Lesser Himalaya (oLH) and described in further detail below.

**Lesser Himalaya of Northwest India**

The Himalaya of northwest India (Figure 2), from the Chamba region to the west to the Almora region to the east, marks an ideal setting along the Himalayan orogen to study feedbacks between tectonics, climate, and surficial processes given the diversity of structures present and shifting zones of maximum exhumation along strike of the system. Contrasting styles of deformation within ~350 km along strike highly influence observed

map geometries of major tectonostratigraphic sequences, including development of LH windows (e.g., Kullu-Rampur Window) and preservation of MCT hanging wall klippen (e.g., Shimla Klippe and Lansdowne Klippe). From the Kullu-Rampur Window and to the east, LH duplexing marks a zone of maximum exhumation where precipitation is primarily focused by an orographic barrier (Thiede et al., 2004). To the west of the Kullu-Rampur window in the Chamba region, a lateral ramp north of the MCT is absent and no duplexing is observed within the LH. Here, MCT movement along a flat decollement has likely resulted in primary uplift along the Himalayan thrust front to the south more proximal to the FT, where both precipitation and exhumation are currently focused (Deeken et al., 2011). This dynamic relationship highly influences present day LH exposures, and from the Kullu-Rampur window to the east, a near complete record of LH strata is widely exposed in northwest India.

Here, high stratigraphic diversity within the LH exposed in northwest India, well constrained by biostratigraphy, Nd geochemistry, and detrital zircon geochronology, allows for resolution of many structural ambiguities presented within the frontal thrust system of northwest India (Ahmad et al., 2000; Richards et al., 2005; Celerier et al., 2009; McKenzie et al., 2011, Webb et al., 2011). Of importance is the south dipping Tons Thrust, which structurally emplaces the oLH above the iLH in northwest India. The iLH resides structurally in the footwall of the Tons Thrust and consists of mostly Late Paleoproterozoic to Mesoproterozoic rocks. The oLH resides in the Tons Thrust hanging wall and consists of mostly low grade Neoproterozoic to Cambrian metasedimentary

rocks. While most iLH strata, including the Proterozoic Damtha and Deoban Groups, the Paleoproterozoic Berinag Group, and the Paleoproterozoic Munsiari Group have along-strike equivalents along the length of the orogeny, exposure of oLH strata is limited to the northwest Indian Himalaya (Auden, 1934; Valdiya, 1980; Célérier et al., 2009a; Webb et al., 2011a, Yu et al., 2015). oLH strata of the Tons Thrust hanging wall are part of a continuous belt of material that likely extended from northwest India to the eastern syntaxis (Myrow, 2015; Yu, 2015), with remnants of the youngest oLH strata preserved within structural synforms of northwest India. Nanital marks the eastern most preservation of the Krol-Tal belt across the Himalayan orogeny.

The oLH stratigraphy and consists of the Shimla (Jaunsar equivalent), Baliana, Krol, and Tal Groups, all with well-established age constraints described below (Figure 3). The early Neoproterozoic Shimla Group is made up of a variety of phyllite and fine-to-medium grained quartzites of the ~620-800 Ma Chandpur and Nagthat Formations (Valdiya, 1980; McKenzie et al., 2011; Yu et al., 2015). The Basantpur Formation (~850 Ma) of the Shimla Group consists of interbedded limestone and black, carbonaceous phyllite and slate (Srikantia and Sharma, 1976; Celerier et al., 2009a; McKenzie et al., 2011). The Shimla group is stratigraphically positioned below the conspicuous, Marinoan-aged (~635 Ma) diamictite and cap-carbonate of the Baliana Group (Jiang et al., 2002, 2003a,b; McKenzie et al., 2011); a reliable oLH marker horizon. The Krol Group (~590-543 Ma) consists of a thick package of dolomite and limestone, with lenses

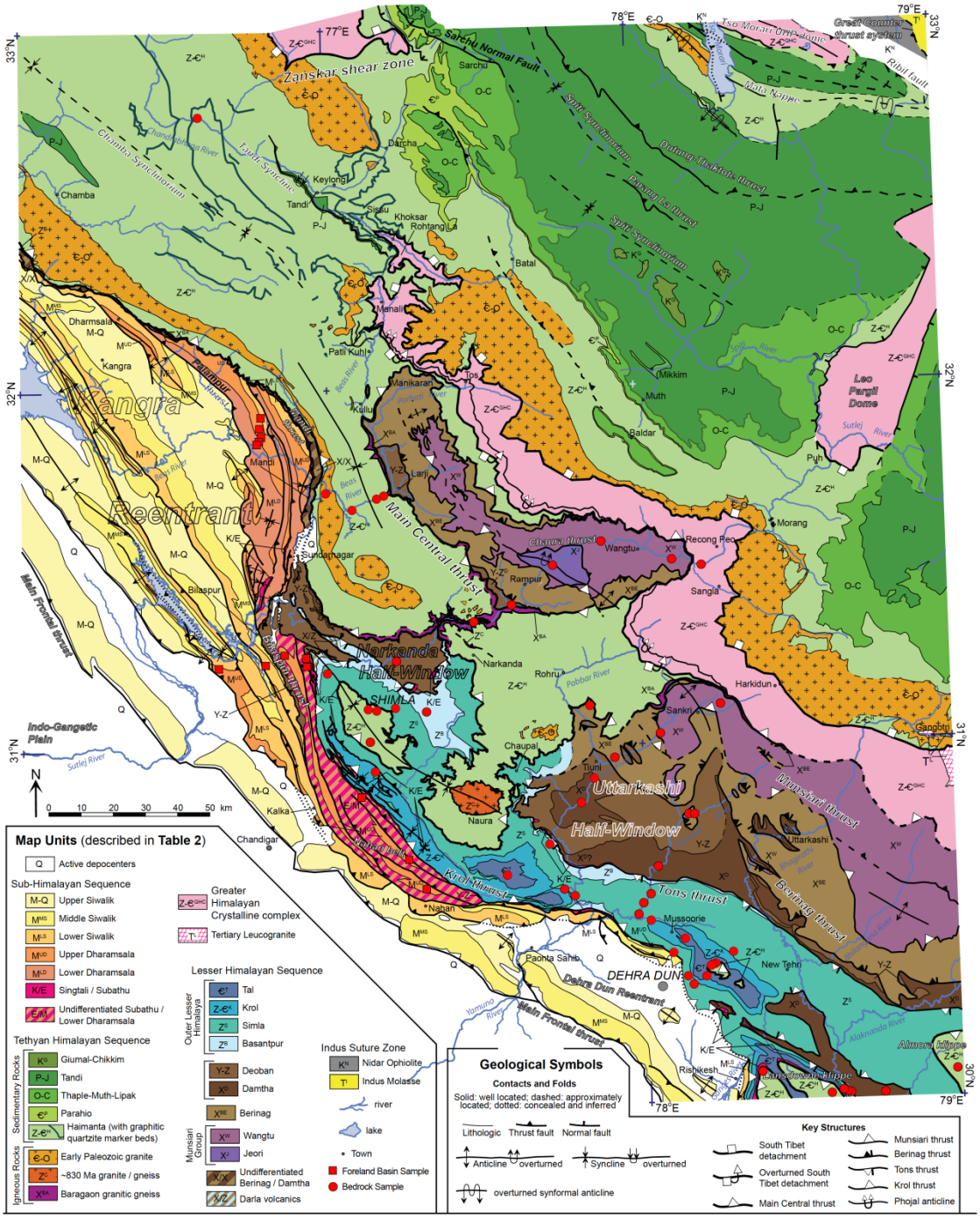


Figure 2: Detailed geologic map of the Himalaya of northwest India with bedrock and foreland basin sample localities. From Webb et al. (2011).

of siliciclastic beds throughout (Valdiya, 1980; Singh and Rai, 1983; Jiang et al., 2002, 2003a,b). The ~1 km thick lower Cambrian Tal Group stratigraphically overlies above the Krol Group and is primarily made up of a coarsening-upward sequence from carbonaceous black shales to medium-grained quartz arenites and low-grade quartzites (Valdiya, 1980; Hughes et al., 2005).

Sparse preserved lenses of Paleogene shallow marine foreland basin deposits of the Subathu Formation unconformably overlie rocks in both iLH and oLH zones and are often preserved structurally beneath the MCT (Webb et al., 2011). It is probable that these Subathu deposits were deposited unconformably above pre-deformed iLH and oLH strata before Himalayan deformation progressed to the LH. Higher-grade schists, quartzites, paragneiss, and orthogneiss rocks of the MCT hanging wall (TH and GH) lie structurally above the oLH and iLH, and have biostratigraphic age constraints and detrital zircon U-Pb age signatures similar to that of the oLH (Frank et al., 1977; Hughes and Droser, 1992; Miller et al., 2001; Richards et al., 2005; Webb et al., 2011; McKenzie et al., 2011). Similarities in biostratigraphic ages, detrital zircon U-Pb signatures, and Nd isotopic signatures across these zones support a continuous passive margin model for the predeformational setting of the oLH, GH, and TH above the India craton, where all three zones represent different proximal-to-distal parts of an ancient passive margin on northern India (Searle, 1986; Brookfield, 1993; Corfield and Searle, 2000; Myrow et al., 2003, 2015; McKenzie et al., 2011).

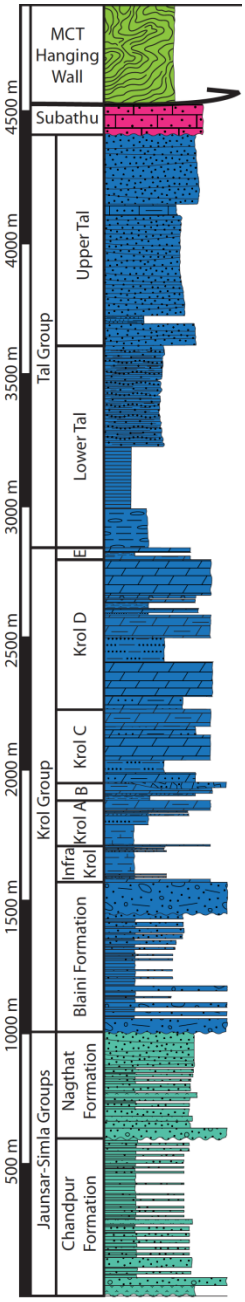


Figure 3: Generalized stratigraphic column of the outer Lesser Himalaya around the Mussoorrie syncline. The Subathu formation overlies the Upper Tal Formation, and MCT hanging wall rocks are structurally above the oLH. Section compiled from Valdiya (1970), Tewari (2012), Hughes et al. (2005), Jiang et al. (2003).

**Foreland Basin of Northwest India Himalaya**

Peripheral foreland basin systems form in collisional belts in response to flexure of the lithosphere due to tectonic loading by the adjacent thrust belt (Beaumont, 1981; Jordan, 1981). The sedimentology, stratigraphy, and structure of a foreland basin are the result of tectonic shortening, climate, and erosion of the source area. Thus, these basin deposits provide insight into the kinematic and exhumational evolution of mountain belts that may not be inferred otherwise from the mountain belt itself due to metamorphic overprinting, extreme deformation, or removal by erosion. Here we focus on the Cenozoic Subhimalaya sequence of northwest India to the south of the MBT, where thrusting above the FT exposes continuous Himalayan foreland basin sequences that preserve a near complete record of Cenozoic sedimentation.

The Sub-Himalayan foreland basin of northwest India is subdivided into sub-basins including the Late Miocene-Pleistocene succession of the Subathu sub-basin and the adjacent Kangra sub-basin to the west (Raiverman et al., 1983; Najman et al., 2004) (Figure 4). The Subathu sub-basin is comprised of Late Paleocene-Mid Eocene shallow marine facies of the Subathu Formation (Mathur, 1978; Batra, 1989; Najman et al., 2004; Bera et al., 2008) below non-marine facies of the Late Oligocene-Middle Miocene Dagshai and Kasauli Formations. The Dagshai Formation unconformably overlies the Subathu Formation and the contact is marked by a distinct white shoreface sandstone (Najman et al, 1993, 2004; Bera et al., 2008). The Kasauli Formation overlies the Dagshai Formation by a conformable and transitional contact (Najman et al., 2004).

Rocks from the non-marine Neogene Siwalik Group overlie the Kasauli Formation in the Subathu sub-basin, but the contact is not exposed in the Subathu sub-basin.

The Kangra sub-basin is comprised of the non-marine Miocene Dharamsala Group and Neogene Siwalik strata. The basal contact of the Dharamsala Group is not exposed, so no Paleogene marine facies are exposed here. The Dharamsala Group is further broken into the Lower Dharamsala and Upper Dharamsala subgroup, with depositional ages of 21-17 Ma and 17-13 Ma respectively (White et al., 2002). The Lower Dharamsala group is sub-divided into the basal Chimnun Formation and the Pabo Formation, while the Upper Dharamsala is sub-divided into the basal Al Formation and the Makreri Formation (Raiverman & Seshavataram, 1965; Raiverman et al., 1983; White et al., 2002). In contrast to the Subathu sub-basin, pre-Siwalik rocks of the Kangra sub-basin have undergone minimal tectonic disruption, therefore making this succession suitable for magnetostratigraphic dating and sedimentary logging (White et al., 2002; Najman et al., 2004). Depositional age constraints on this pre-Siwalik succession, as well as recent provenance work on these rocks using a variety of techniques including heavy mineral analyses, detrital white mica $^{40}Ar/^{39}Ar$ thermochronometry, and Sr-Nd isotope compositions (Najman et al., 2004, 2009; White et al., 2001, 2002), have set the framework to study these deposits and better understand the exhumational evolution of the LH.

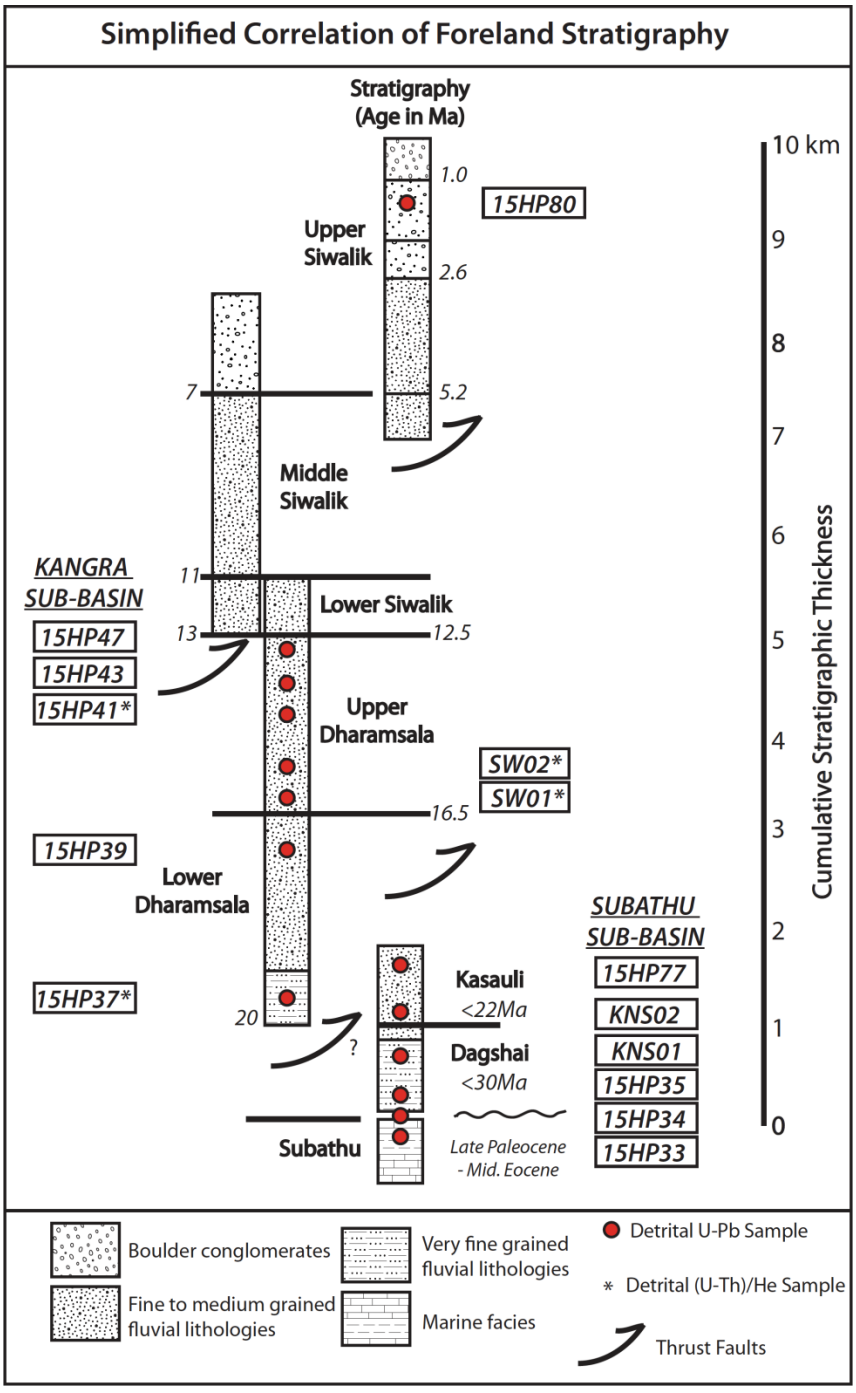


Figure 4: Simplified correlation of stratigraphy of the Subathu and Kangra sub-basins of northwest India with stratigraphic location of foreland basin samples analyzed. Modified from White et al. (2001).

**Competing Tectonic Models**

Given present day map geometries, cross sectional geometries, and pre-Himalaya deposition of oLH, GH, and TH protolith rocks along a continuous passive margin, two contrasting tectonic models for the kinematic evolution and origin of the Tons Thrust in northwest India have been proposed that agree with the above criteria (Webb et al., 2011; Celerier et al., 2009a,b). The differing kinematics between these models is dependent on where the oLH resides in the Himalayan predeformational configuration, such that the oLH is either more proximal or more distal in relation to GH and TH protoliths. One model suggests that the Tons Thrust shared an original decollement with the South Tibetan Fault System and that the oLH is a far-traveled klippe emplaced against the iLH during the Eocene-Oligocene prior to out-of-sequence activation of the Main Central Thrust (MCT) (Celerier et al., 2009a) (Figure 5). In this model, the oLH is positioned on the distal side of the GH protolith and on the proximal side of the TH protolith along the Indian passive margin prior to Himalayan collision. In contrast, a second model suggests that the oLH is a short-traveled, in-sequence thrust sheet emplaced in the Late Miocene, post-dating movement along the MCT (Webb et al., 2011) (Figure 6). In this model, the position of the oLH is the most proximal sequence along the predeformational passive margin setting.

Given a time discrepancy for oLH emplacement of at least 14 Myr between the two constrasting tectonic models and broad constraints on the thermal history of the oLH, iLH, and MCT hanging wall, zircon (U-Th)/He (ZHe) thermochronology can effectively

be used to test these models. Expected ZHe ages from different tectonostratigraphic sequences vary significantly for each tectonic model (Figure 7). For the short-traveled oLH model, predicted ZHe ages of 13-23 Ma and 8-17 Ma for preserved MCT hanging wall klippen and oLH rocks respectively are expected. In contrast, predicted ZHe ages of 16-28 Ma and 25-41 Ma are expected for preserved MCT hanging wall klippen and oLH rock respectively for the long traveled oLH model. In order to elucidate the timing LH exhumation and test these two models, we systemically collected detrital and bedrock samples collected from the Miocene foreland basin and strike-perpendicular transects across major tectonostratigraphic zones of the frontal thrust belt for ZHe and detrital zircon U-Pb analyses (Figure 2). The integration of bedrock and detrital ZHe and U-Pb data provides direct quantitative insights into Himalayan exhumation during progressive thrusting and its erosional products shed into the foreland basin, and these constraints are necessary to test existing tectonic models and provide insight into the exhumational evolution of the Lesser Himalaya of northwest India.

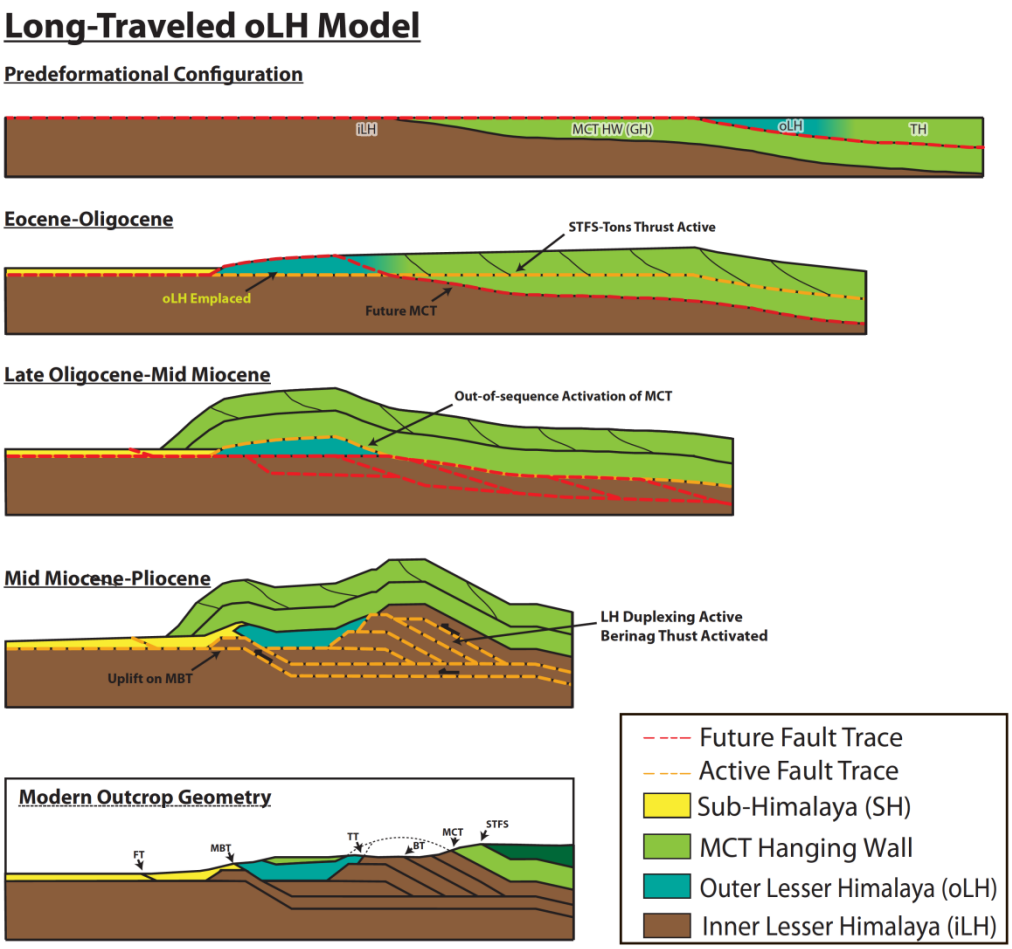


Figure 5: Long traveled kinematic model for oLH emplacement. In this model, the oLH is in a more distal setting along the north Indian passive margin before collision. Here, the Tons thrust is part of the South Tibetan Fault System, such that the oLH is the southern most tongue of the Tethyan fold and thrust belt and emplaced during the Oligocene-Eocene. Out of sequence activation of the MCT in the Late Oligocene-Mid Miocene cuts the Tons thrust and preserves the oLH in its present day configuration. After Celerier et al. (2009a).

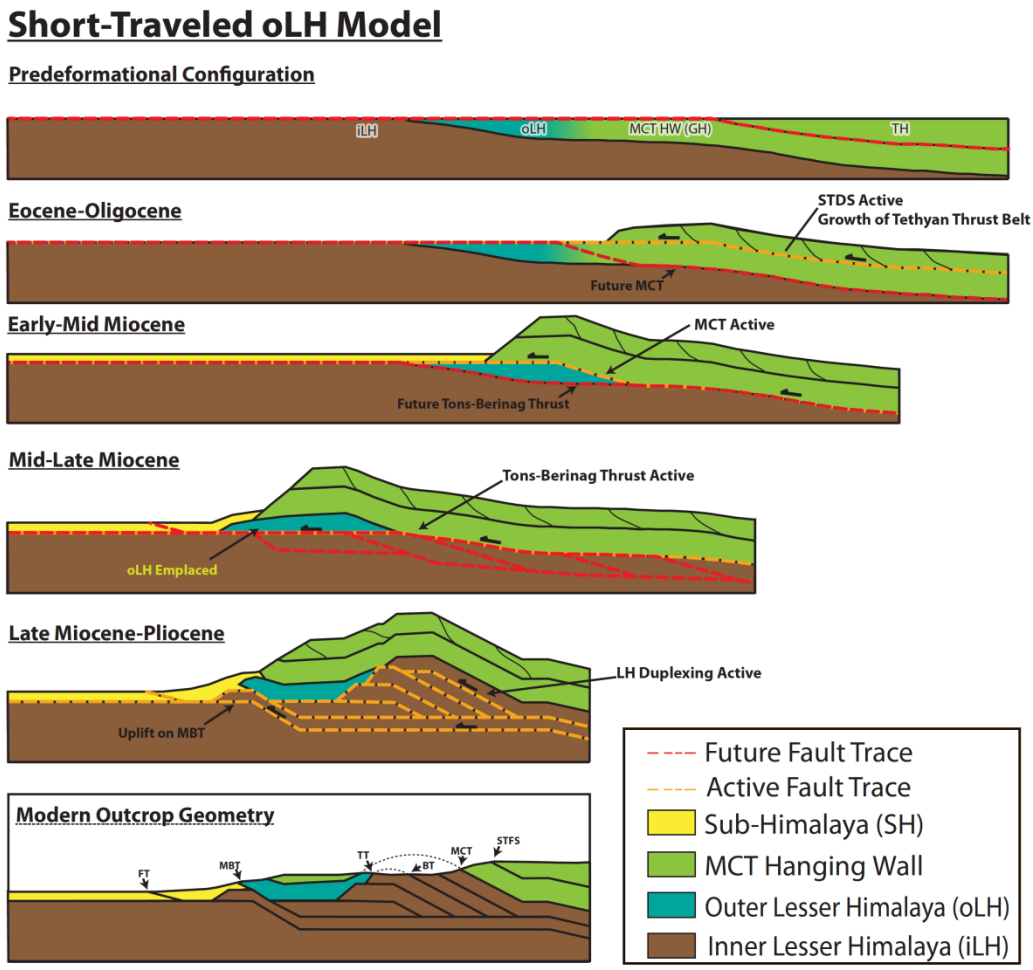


Figure 6: Short traveled kinematic model for oLH emplacement. In this model, the oLH is in a more proximal setting along the north Indian passive margin before Himalayan deformation. This model shows activation of the Tons thrust post MCT activation, resulting in emplacement of the oLH in the Mid-Late Miocene due to in sequence thrusting. After Webb et al. (2011).

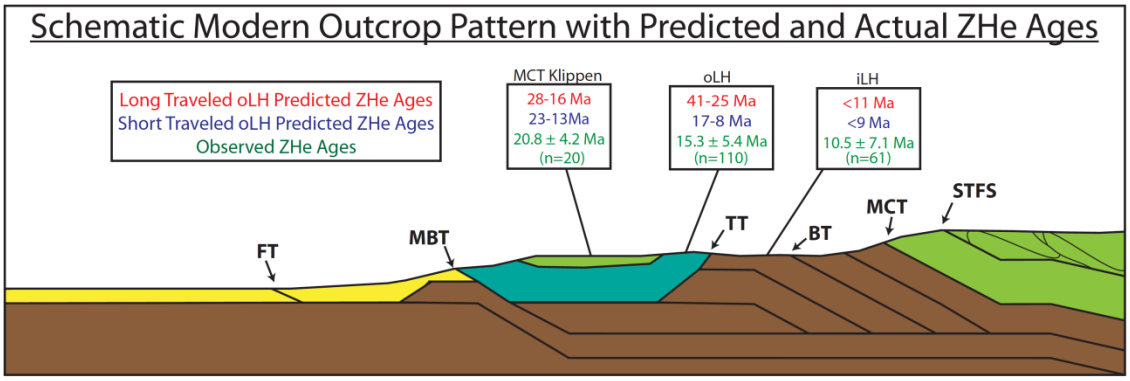


Figure 7: Schematic cross section of the Himalaya of northwest India with predicted average zircon (U-Th)/He ages for each tectonic model. Actual ZHe ages are from a compilation of single grain aliquots for each tectono-stratigraphic zone. Actual ZHe ages from each tectono-stratigraphic zone are in agreement with predicted ages for the short traveled oLH tectonic model for Lesser Himalayan deformation.

## METHODS

### Mineral Separation

Zircon separates were obtained using standard mineral separation techniques including crushing and grinding of whole rock samples down to a sand, concentration of heavy minerals through a Gemini water table, Frantz magnetic separation, and standard heavy liquid separation.

### Bedrock Zircon (U-Th)/He Thermochronometry

Low-temperature thermochronometry has been utilized as a prevailing tool in elucidating thrust kinematics and exhumational evolutions in a variety of tectonic environments (Stockli, 2005; Reiners, 2005; Wolfe and Stockli, 2010; Long et al., 2012). This study employs bedrock zircon (U-Th)/He thermochronometry (ZHe) to (1) constrain the kinematics and timing of thrust sheet emplacement within the hinterland and (2) provide a high-resolution database of hinterland ZHe ages (source ages) to use for foreland basin provenance analyses.

Radiogenic $^{4}$He is produced as alpha particles in the radioactive decay of the isotopes $^{238}$U, $^{235}$U, $^{232}$Th, and $^{147}$Sm. The (U-Th)/He thermochronometric system is dependent on the diffusion kinetics of radiogenic $^{4}$He within a specific crystal lattice. The diffusive loss of $^{4}$He is controlled by thermally-activated volume diffusion, and the rate of this diffusion is dependent on the crystal lattice and properties of specific U and Th bearing minerals (e.g., Zeitler et al., 1987; Farley et al., 1996). Characterizing the temperature dependent diffusion kinetics of $^{4}$He of specific minerals allows for

constraints on temperatures at which $^{4}$He is either retained or diffusively released from a single mineral crystal. The temperature at which $^{4}$He begins to be retained is mineral dependent and is defined as the closure temperature (Tc) (Dodson, 1973). At a specific temperature range below the Tc, termed the partial retention zone (PRZ), $^{4}$He is preferentially retained or diffused due to kinetic variation of $^{4}$He diffusion within a crystal. The ZHe system is characterized by He closure temperature of ~180° C, corresponding to exhumation from depths of ~7 to ~9 km and a partial retention zone (PRZ) between ~140-200° C (e.g., Reiners et al., 2004; Reiners and Brandon, 2006; Stockli, 2005; Wolfe and Stockli, 2010). Due to the rapid exhumation observed within the Himalayan fold and thrust-belt (Deeken et al., 2011; Thiede et al, 2004, Long et al., 2012), it can be assumed that rocks presently exposed at the surface rapidly passed through the ZHe PRZ, such that the time spent in the PRZ is negligible and the ZHe ages presented here represent the time that these rocks exhumed through the ZHe Tc of ~180° C.

With both the production of $^{4}$He (alpha particles) in the radioactive decay of $^{238}$U, $^{235}$U, $^{232}$Th, and $^{147}$Sm and the diffusion kinetics of $^{4}$He within a zircon crystal are relatively well understood, an age at which a single zircon crystal cooled below the closure temperature can be calculated by the ratio of the daughter product to the four radioactive parent isotopes. This relationship is defined in the (U-Th)/He age equation below:

$$^{4}He=8^{238}U(e^{\lambda 238t}-1)+7(^{238}U/137.88)(e^{\lambda 235t}-1)+6^{232}Th(e^{\lambda 232t}-1)+^{147}Sm(e^{\lambda 147t}-1)$$

where $^{238}U$, $^{235}U$, $^{232}Th$, $^{147}Sm$ and $^{4}He$ are concentrations of the various isotopes and 238λ, 235λ, and 232λ are decay constants for their respective isotopes. This age, however, must be corrected due to a fractional loss of 4He from the ~20 μm of the mineral grain because of alpha ejection. When an alpha particle is produced, it travels some distance before it stops within the crystal lattice. In zircon, this distance is ~16.6 μm, ~19.6 μm, and ~19.3 μm for the alpha ejection due to the radioactive decay of $^{238}U$, $^{235}U$, $^{232}Th$, respectively (Farley et al., 1996). Thus, $^{4}He$ produced in the outer ~20 μm of a grain may be ejected out of a crystal and must be corrected for using a morphometric correction, or $F_T$ correction, which is dependent on a grains surface area to volume ratio and on mineral density (Farley et al., 1996).

All ZHe analyses were performed at the UTChron facilities at the Jackson School of Geosciences at the University of Texas at Austin following analytical procedures of Wolfe and Stockli (2010). For each bedrock sample, 4-7 whole zircon crystals ranging in grain size from ~65 μm to ~120 μm were handpicked for analyses. Each grain selected was morphometrically measured for alpha-ejection correction, photographed, and placed in ~1 mm Pt tubes. Aliquots were placed in an automated, ultra-high vacuum He extraction line, and degassed by heating with a diode laser. $^{4}He$ concentrations were obtained by isotope dilution and $^{3}He/^{4}He$ measurement using a quadrupole mass spectrometer. After complete degassing, grains were removed from Pt tubing, and dissolved using standard pressure-vessel HF-HHC double digestion procedures for U, Th, and Sm determination. Once spiked and dissolved, solutions were analyzed for U, Th,

and Sm concentrations through isotope dissolution using Thermo Element2 inductively coupled plasma mass spectrometer. With known $^{4}$He, U, Th, and Sm concentrations, a raw age was calculated, and an alpha-ejection correction was applied to derive corrected (U-Th)/He ages for each aliquot with an 8% propagated error based on the reproducibility of the Fish Canyon Tuff standard (Reiners et al., 2002). The effective Uranium (eU) was examined for each analysis to check if ages were affected by radiation damage (Guenthner et al., 2013). For bedrock samples, reproducible aliquot ages were averaged, and reproducibility-based standard deviation errors are reported**.**

**Zircon U-Pb Geochronology**

Detrital zircon U-Pb geochronology has developed into a powerful geologic tool often utilized to fingerprint potential provenance sources and to help define and distinguish distinct tectonostratigraphic boundaries in complex tectonic settings. This method involves the three different decay systems in the U-Th-Pb system, including $^{238}U \rightarrow ^{206}Pb$, $^{235}U \rightarrow ^{207}Pb$, and $^{232}Th \rightarrow ^{208}Pb$ with specified half-lives of 4.47 Ga, 0.70 Ga, and 14.01 Ga, respectively (Jaffey et al., 1971). Concentrations of various isotopes can be utilized to determine ages based on the ratio of parent-daughter isotopes (Faure and Mensing, 2005), and measured isotopes for zircon U-Pb analyses include $^{206}Pb/^{238}U$, $^{206}Pb/^{207}Pb$, and $^{206}Pb/^{204}Pb$. Concentrations of U-Th-Pb isotopes were determined using the laser ablation inductively coupled plasma mass spectrometry (LA-ICP-MS) technique (Feng et al., 1993; Fryer et al., 1993) at the UTChron facilities at the University of Texas at Austin.

Pure zircon separates were poured onto a one-inch diameter epoxy mount covered with double sided sticky tape. To obtain statistically robust ages populations for each detrital sample such that no fraction comprising more than 5% of the total population is missed at the 95% confidence level, at least 120 zircon grains were selected at random and analyzed for U-Pb ages (Vermeesch, 2004). The position of each analyzed grain was mapped for each sample analyzed. Each unpolished grain was depth profiled using a Photoon Machines Analyte GS 193 nm Excimer Laser with a 30 μm width spot size to a depth of about 16 μm. The ablation process begins with six preablation cleaning shots, a ~25 second baseline reading, and a continuous 300 shots for analyses at 10 Hz repetition rate, 4 mJ energy attenuated to 24%, 1.45 J/cm$^2$ fluence. Each analysis is followed by a 35 second washout period before the next analysis. Ablated aerosol is mixed with ultrapure helium carrier gas at 1 liter per minute and transported to a ThermoFisher Element2 double-focusing magnetic sector ICP-MS with the following settings: RF power- 1100-1250 W; Cooling gas- Ar: 16 L/min; Auxiliary gas- Ar: 0.9 L/min; Sample gas- Ar: 0.9-1.2 L/min. The second electron multiplier (SEM) detection system analyses the following masses for each analyses: $^{202}$Hg, $^{204}$Pb/Hg, $^{206}$Pb, $^{207}$Pb, $^{208}$Pb, $^{232}$Th, $^{235}$U, and $^{238}$U.

The raw data generated from ICP-MS analyses were processed using the Iolite data reduction software (Paton et al., 2011) and the VizualAge data reduction scheme (Petrus and Kamber, 2012). GJ1 is analyzed as a primary reference standard for calibration while either Pak1 or Plesovice were analyzed as secondary reference

standards. Ages produced in this study are reported with 2σ propagated uncertainties and grains with greater than 10% discordance were excluded. Probability density plots were produced for each sample as well as histograms using a bin width of 30 Myrs to visually display the detrital zircon age populations of each sample.

### U-Pb-He Double Dating

The U-Pb-He double dating technique applied to siliciclastic basin deposits is a useful tool in constraining both sediment provenance and the exhumational evolution of tectonically active source areas. This method involves both U-Pb and (U-Th)/He analysis on a single grain resulting in not only a robust detrital zircon U-Pb and detrital zircon (U-Th)/He (DZHe) dataset, but a dataset that allows for resolution of source ambiguities with two separate ages from a single zircon crystal (Reiners et al., 2005). This study applies this method to select samples collected from the foreland basin of northwest India. After U-Pb analyses for select detrital samples analyzed using the methods above, ~20 zircon grains were selected from distinct U-Pb age populations to be analyzed for (U-Th)/He using the techniques described above. Detrital ZHe ages were plotted as PDPs for each sample.

## RESULTS

### Bedrock Detrital Zircon U-Pb Results

A total of 17 oLH and MCT hanging wall bedrock samples were analyzed to determine detrital zircon U-Pb age populations necessary to fingerprint distinct bedrock

lithologies (DeCelles et al., 2000; McQuarrie et al., 2008; Myrow et al., 2003, 2010, 2015; Webb et al., 2011; McKenzie et al., 2011; Mandal et al., 2014). Bedrock U-Pb results are summarized by probability density plots in Figure 8. iLH probability plots in Figure 8 were compiled from Myrow et al. (2015), Webb et al. (2011), and McKenzie et al. (2011), and show prevalent age peaks of ~1.6-1.8 Ga grains, with no grains younger than ~1.6 Ga within the Jeori, Berinag, Dharagad, or Rautgara groups. A major unconformity exists within the iLH, where the Mandahli Formation unconformably overlies the Deoban Formation and includes a small age peak of younger ~950 Ma grains and a more dominant peak of ~1.8 Ga grains (McKenzie et al., 2011).

Detrital zircon U-Pb results from three Shimla Group samples of the oLH have a general age range of 800-3100 Ma. Sample MGM02 has a major age peak at ~1.8 Ga while sample STJ05 has a predominant peak at ~800 Ma. Sample DGH01 has two major peaks at ~950 Ma and 1.6 Ga. A sample from the Blaini diamictite (MSB01) deposited above Shimla Group rocks and stratigraphically below the Krol Formation, consists of ages ranging between ~650-3000 Ma and includes two major peaks at ~800 Ma and ~1.8 Ga. A sample collected (15HP76) from a siliciclastic unit within the Krol carbonate package exposed just outside of the village of Deonghat was analyzed and provides the first detrital zircon U-Pb constraints on the Krol package. Ages from sample 15HP76 are similar to that of the Blaini diamictite and range from ~650-3100 Ma, and consist of two prominent peaks at ~800 Ma and ~1.8 Ga. Four samples from the Tal Formation were collected and analyzed for zircon U-Pb age populations. All Tal samples range in ages

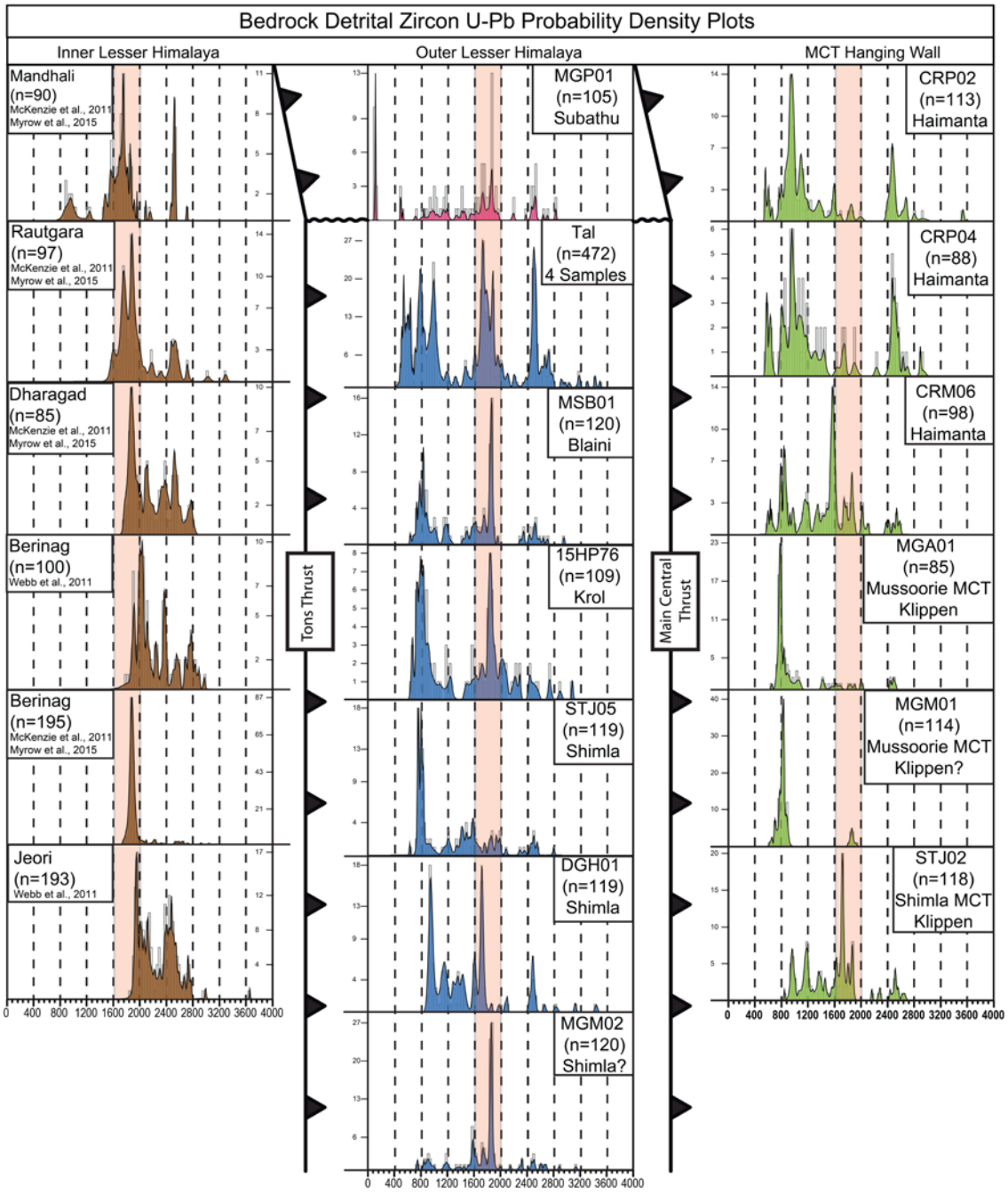


Figure 8: Compilation of bedrock detrital zircon U-Pb age populations from this study and from past studies. Probability density plots are plotted by both stratigraphic position and structural position. iLH ages compiled from McKenzie et al. (2011), Webb et al. (2011), and Myrow et al. (2015).

between ~450-3500 Ma. Samples MGT02, KD1, and MST01 all have similar age populations with two major peaks between 500-800 Ma and 1.6-1.8 Ga, while sample MGT01 lacks a major peak of 1.6-1.8 Ga grains and the majority of grains from this sample range between ~450-1050 Ma. All U-Pb for oLH samples are shown in Figure 9.

A sample from the Subathu Formation (MGP01), deposited unconformably above the Tal Formation, was collected from the Mussoorie syncline directly above where sample MGT02 was collected and structurally below sample MGA01 from the Mussoorie MCT klippe. While the age spectra between ~450-3500 Ma from sample MGP01 is similar to signatures of oLH with a large age peak at 1.8 Ga, the Subathu also contains Early Cretaceous zircons with U-Pb ages of 105-125 Ma.

Samples from the Shimla and Mussoorie MCT Klippen, as well as MCT hanging wall rocks in the western Chamba region near Udaipur, Himachal Pradesh were collected and analyzed for detrital zircon U-Pb age populations. In Shimla, sample STJ02 was collected from the Shimla klippe and yielded U-Pb ages ranging between ~850-2800 Ma, with a predominant peak at ~1.6 Ga. Sample MGA01 from the Mussoorie klippe resulted in an age spectra ranging from ~650-2500 Ma, with a major unimodal peak of ~800 Ma grains. Sample MGM01 was collected from a large block of MCT hanging wall rock and resulted in a only single age peak between 750-900 Ma and a minute peak at ~1.8 Ga. One granitic sample, BRI01, collected from an intrusion within the MCT hanging wall along the Beas River, was collected for U-Pb analyses. Twenty grains were analyzed resulting in an age range from 425-486 Ma, with an average age of 462±22 Ma.

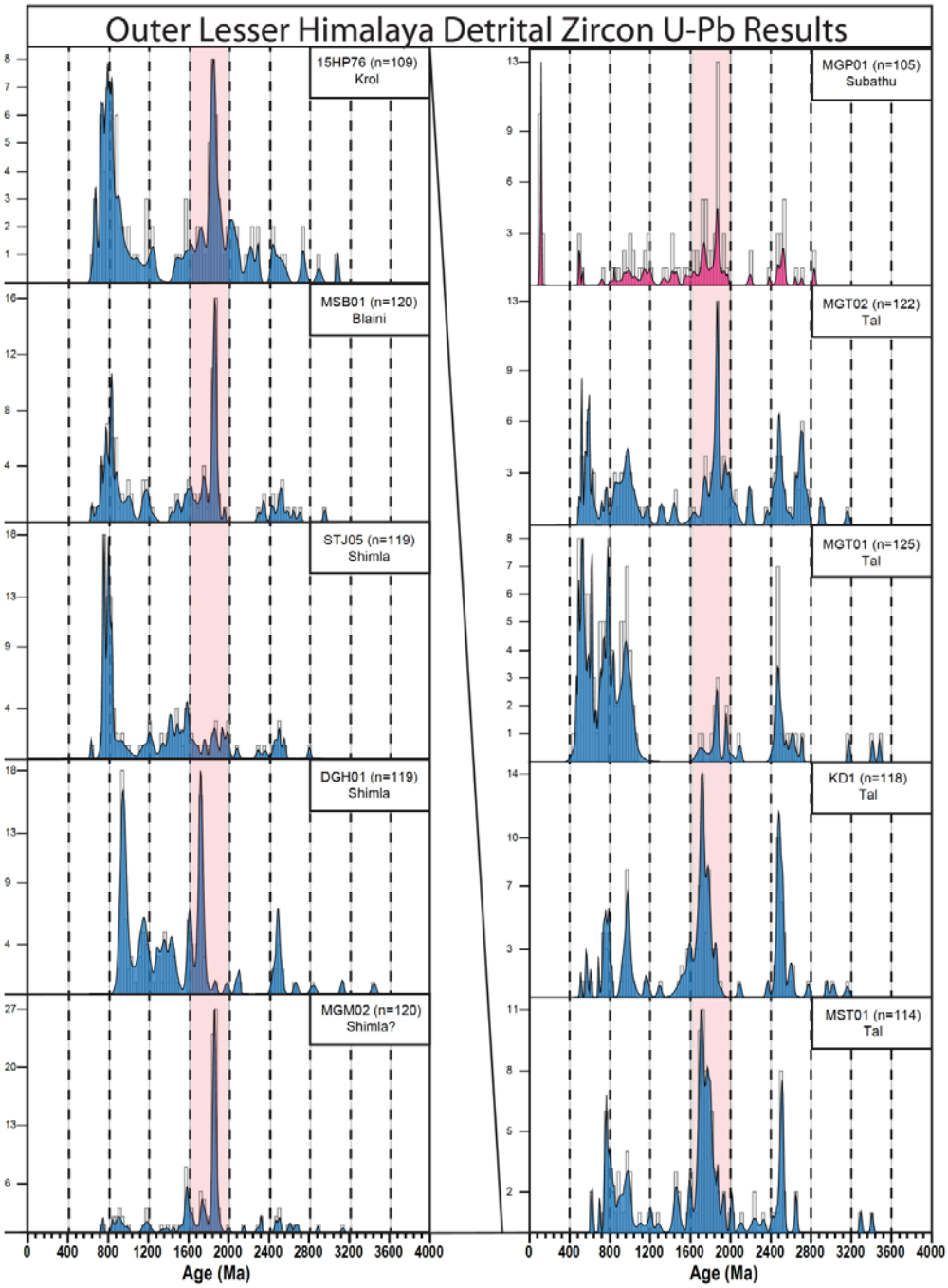


Figure 9: Detrital zircon U-Pb probability density plots and histograms for oLH rocks analyzed, including sample MGP01 from the Subathu formation which was deposited unconformably above the oLH before Lesser Himalayan deformation.

Near Udaipur, three samples from the Haimanta Group were analyzed for U-Pb age populations. One sample from Manjir Diamictite yielded U-Pb ages between ~600-2600 Ma with two major age peaks at ~850 Ma and ~1.6 Ga, similar to that of the Blaini diamictite but lacks the 1.8 Ga peak observed from sample MSB01. Two samples from the Phe Formation (CRP02 and CRP04) were collected from outcrops where well preserved giant groove clasts and flute casts are preserve predominately south flowing paleocurrents (Draganits et al., 2008), though sample CRP02 was collected from a bed which preserved flute casts with north flowing paleocurrents. Both Phe samples yielded nearly identical age spectra ranging from ~550-3500 Ma with two major age peaks at ~950 Ma and ~2500 Ma.

In summary, nearly all samples analyzed from the oLH and MCT hanging wall rocks yielded rather similar age ranges generally between ~450-3500 Ma with major age peaks at ~450 Ma, 800-950 Ma, and 1.6-1.8 Ga, Sample MGP01 from the Lower Cenozoic Subathu Formation exposed above the oLH in Mussoorie contains a significant age component of Early Cretaceous grains. Important to note that rocks from iLH rocks, while not analyzed here, have the most distinguishable age populations from the Himalaya fold and thrust belt source and generally lack grains younger than ~1.6 Ga (McKenzie et al., 2011; Webb et al., 2011; Myrow et al., 2015; Mandal et al., 2014).

**Bedrock (U-Th)/He Results**

Zircon (U-Th)/He analyses were collected from 57 bedrock samples spanning across 4 major North-South transects that cut perpendicular to prominent structures and

cover a full range of LH and MCT hanging wall strata. The western most transect, the Sutlej Transect, begins in oLH strata just south of Shimla and continues north up the Sutlej Valley into the GH crystallines just southwest of Morang. To the east, the Tons Valley transect begins in oLH strata north of Sataun and continues north up the Tons Valley up to Datmir just south of the structural contact between the iLH and the MCT hanging wall. The Mussoorie/Yamuna transect covers oLH and MCT handing wall strata within the Mussoorie syncline, and continues north across the Tons Thrust into iLH strata as far north as Barkota. The Lansdowne transect marks the eastern most extent of the field area sampled and begins in oLH strata just north of Dugadda, continues north into the Lansdowne MCT klippen, and ends at the iLH window just north of Maltha. Samples were also analyzed from the Haimanta group of the MCT hanging wall in the Chamba region to the west, and from the Almora MCT klippen to the east. Figure 10 shows the zircon (U-Th)/He results and location of each sample analyzed, with all ages reported as the average of single grain aliquots analyzed per sample with an error of two standard deviation (2σ).

***Sutlej Transect***

The Sutlej transect consists of the most complete NE-SW transect that covers much of the Kullu-Rampur Window (Figure 11). To the south, the oldest ZHe ages range from 20.8±0.1 Ma to 23.7±5.2 Ma and were collected from the Shimla MCT klippen structurally emplaced above Shimla Group rocks of the oLH. Directly beneath the Shimla MCT klippen, oLH rocks yield younger ZHe ages of 11.8+0.2 Ma and 9.8±1.3 Ma. To

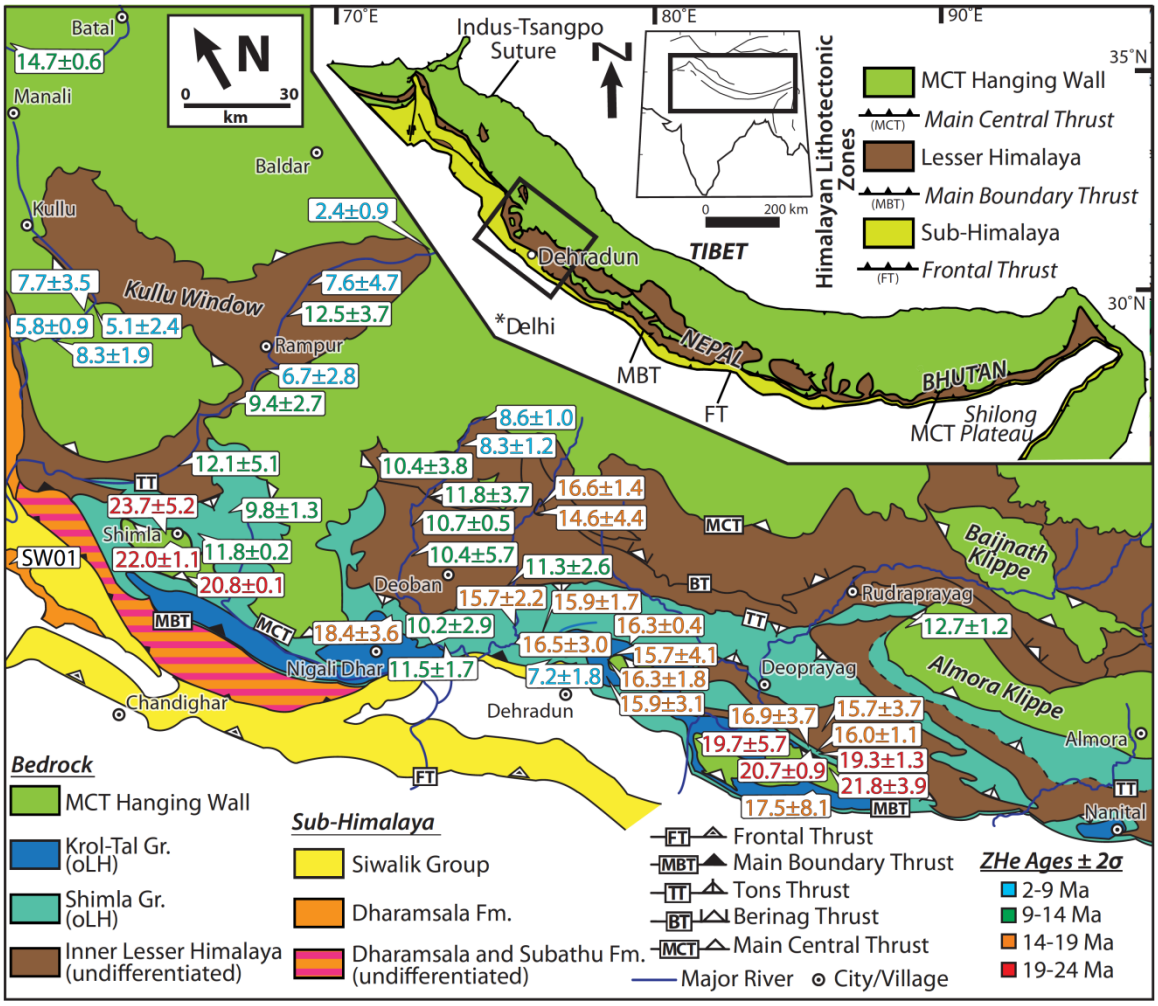


Figure 10: Simplified geologic map of northwest India with zircon (U-Th)/He results. All ages are reported as the average of 2-7 zircon grains with an error of 2 standard deviations from the mean. Map modified after Myrow et al. (2015).

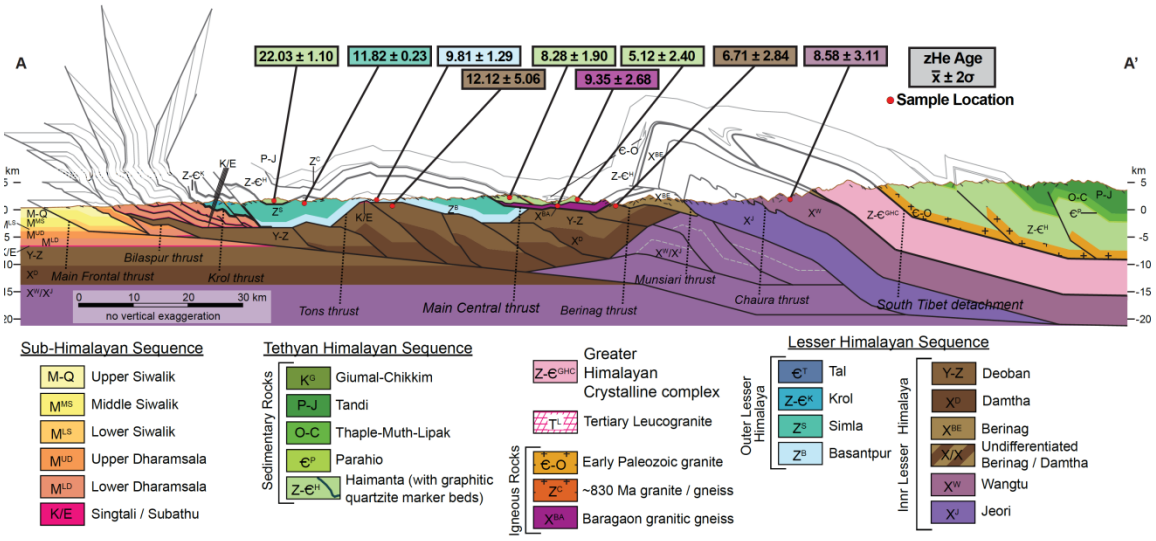


Figure 11: Cross section of the Sutlej transect from A-A' with bedrock zircon (U-Th)/He ages plotted at approximate sample localities. Cross section from Webb et al. (2011)

the north and into the iLH, ages collected within these iLH strata begin at 12.1±5.1 Ma and gradually decrease in age to the northeast to ages ranging from 9.4±2.7 Ma to 6.7±2.8 Ma. The oldest ZHe age within the Kullu-Rampur Window is observed just north of Rampur at a structural high within an overturned anticline. The youngest ZHe age of 2.4±0.9 Ma from the Sutlej Transect is observed at the northernmost sample collected within the GH crystallines. MCT hanging wall rocks collected to the west of the Sutlej transect and south of the Kullu-Rampur Window along the Beas River consisted of ages from 5.1±2.4 Ma to 8.3±1.9 Ma and shows an age trend that get older towards the hinge of an northwest-southeast trending anticline.

***Tons Valley Transect***

To the east, the Tons Valley Transect consists of an overall gradual decrease in ZHe ages from the southwest to the northwest. To the farthest south, ZHe ages of the oLH generally range from 11.5±1.7 Ma to 10.2±2.9 Ma with an oldest oLH age of 18.4±3.6 Ma. Samples collected within upper oLH strata from the Tal Group at Nigali Dhar resulted in non-reset ZHe ages. Within the iLH to the North, iLH ZHe ages show a general decrease in ZHe to the north from 10.4±5.7 Ma to 8.3±1.2 Ma. The oldest ZHe age within the iLH of 11.8±3.7 Ma is observed within the Berinag Thrust hanging wall directly at the fault contact.

***Mussoorie/Yamuna Transect***

The Mussoorie/Yamuna transect provides a record of the most complete oLH stratigraphic section preserved within the Mussoorie syncline and continues north up the

Yamuna River valley into the iLH. The youngest ZHe age within the oLH observed here is 7.2±1.8 and is located to the south closest to the MBT. With the exception of this single oLH sample, all remaining oLH samples within the oLH yield uniform ZHe ages ranging from 15.7±2.2 Ma to 16.3±0.4 Ma and cover the entire oLH stratigraphy from Shimla Group rocks to the upper most Tal quartzites. A single sample collected from the lower Cenozoic Subathu Formation, deposited unconformably above the oLH and preserved directly under the Mussoorie MCT klippen, yields an age of 15.7±4.1 Ma. This Subathu sample caps the ~3 km oLH package that yields uniform ~16 Ma ages throughout. One sample collected from the MCT hanging wall of the Mussoorie klippe directly above the Subathu Formation sample resulted in non-reset ZHe ages ranging from 74-502 Ma. North along the Yamuna River valley, a sample from the iLH just north of the Tons Thrust contact gave an age of 11.3±2.6 Ma. To the north of this sample, a gap in ZHe data exists for ~30 km until the Berinag Thrust hanging wall klippen, which yields ZHe ages of 16.6±1.4 Ma and 14.6±4.4 Ma. Samples from the Berinag Thrust hanging wall marks the northern most extent of the Mussoorie/Yamuna transect.

***Lansdowne Transect***

The Lansdowne transect marks the eastern most extent of samples collected, and covers a complete range oLH strata and into MCT hanging wall rocks of the Lansdowne Klippe. Samples collected from oLH strata here consist of rocks from the Blaini diamictite and uppermost Tal quartzites, and ZHe ages range from 16.0±1.1 Ma to 17.5±8.1 Ma. The northern most sample collected along this transect yields and age of

15.7±3.7 Ma and was collected at what is presently mapped as an iLH window, though the lithology here may be of oLH affinity and should be tested by detrital zircon U-Pb analyses. Rocks from the MCT hanging wall of the Lansdowne klippe yielded ZHe ages ranging between 19.7±5.7 Ma to 21.8±3.9 Ma. While quartzites collected from what is presently mapped as the MCT klippe yielded ages between 16-17 Ma, it is presently unclear if these rocks are part of the Tal or MCT klippen. For this reason, interpretations from this MCT klippe are based on reliable ages from a gneiss sample collected near Lansdowne resulting in a ZHe age of 21.8±3.9 Ma.

***Compiled ZHe Ages by Tectono-Stratigraphic Zones***

Single aliquot ages were compiled based on tectono-stratigraphic sequence, and ages from each zone were plotted as probability density plots (Figure 12). For oLH strata single grain aliquot ZHe ages (n=110), a predominant peak of ~16 Ma grains exists, and the average age with a 2σ error from all oLH samples resulted in an age of 15.3±5.4 Ma. Compiled single grain aliquot ZHe ages (n=61) from iLH strata yielded a predominant age peak between ~8-11 Ma and the average age from all iLH samples resulted in an age of 10.5±7.1 Ma. Compiled single grain ZHe ages (n=20) from MCT hanging wall klippen preserved closest to the FT yielded a predominant age peak of ~21.5 Ma and the average age from all MCT klippen samples resulted in an age of 20.8±4.2 Ma.

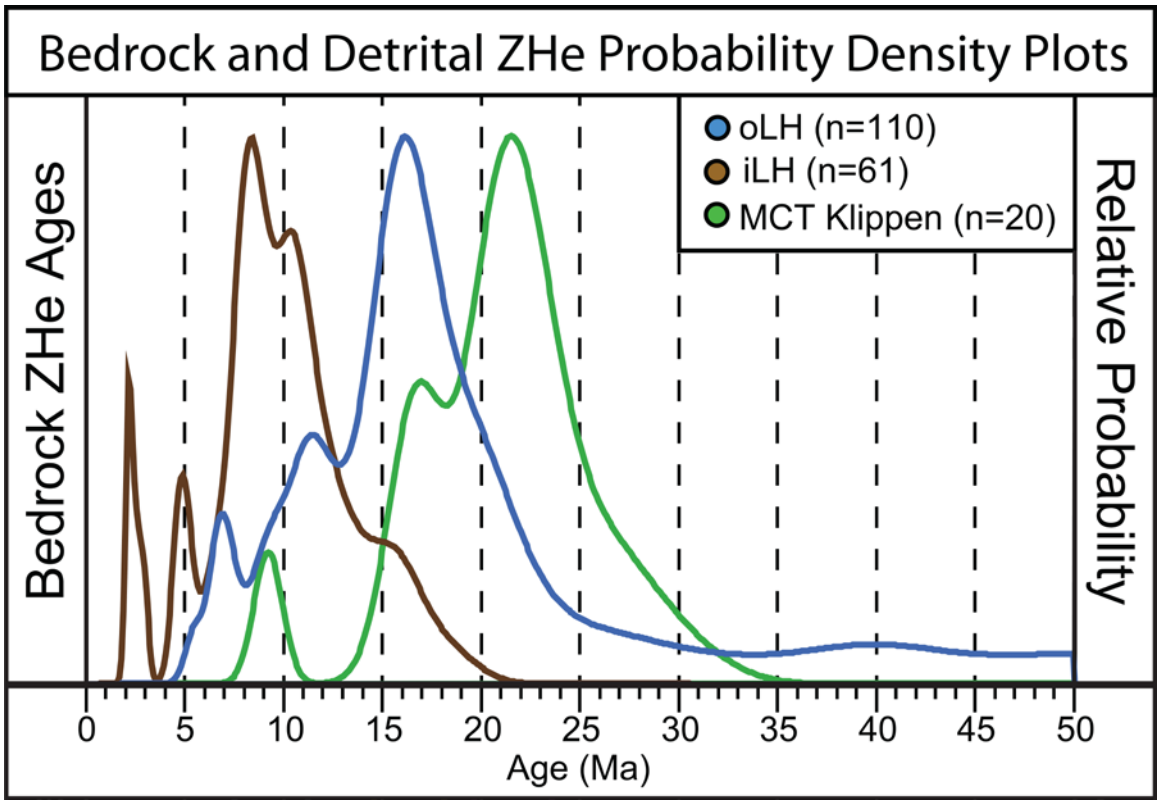


Figure 12: Probability density plots of compilations of single grain zircon (U-Th)/He ages from different tectonostratigraphic zones. Ages compiled from the MCT hanging wall are from rocks within MCT klippen closest to the Frontal Thrust.

## Foreland Basin Zircon U-Pb and (U-Th)/He Results

Six samples from the Subathu sub-basin, eight samples from the Kangra sub-basin, and one sample from the Upper Siwaliks near Chandigarh were collected and analyzed for detrital zircon U-Pb ages (Figure 13). Results from all analyses were plotted as probability density plots and compared to zircon U-Pb ages from the source region.

### *Subathu Sub-basin Detrital U-Pb Results*

Three samples were collected from the Subathu-Dagshai Formation contact well exposed and logged along the Bilaspur-Simla Highway (Najman et al., 1993, 2004). One sample from the Subathu (15HP33) was collected beneath the white shoreface sandstone. Sample 15HP34 was collected from the white sandstone that marks the contact between the Dagshai Formation and Subathu Formation. The third sample, 15HP35, was collected from the Dagshai Formation ~30 meters above the marker sandstone. Dagshai sample 15HP35 consists of an overall age spectra between 470-3150 Ma, with a major peak ages between 470-600 Ma, 800 Ma, 900-1000 Ma, and 2500 Ma. A single grain from 15HP35 yielded a young Cretaceous age of 136 Ma. Sample 15HP34 from the white sandstone marker bed yielded an age spectra similar to that from 15HP35, but lacks any Cretaceous grains and contains a higher abundance of grains between 600-800 Ma. Sample 15HP33 from the Subathu Formation contains much higher abundance of Cretaceous age grains. Three Late Cretaceous age grains from 69-82 Ma, five Early Cretaceous grains from 120-132 Ma, and three Permian grains from 246-282 Ma were analyzed from this sample. The remaining grains from this sample include an age spectra between 430-3450 Ma, and the

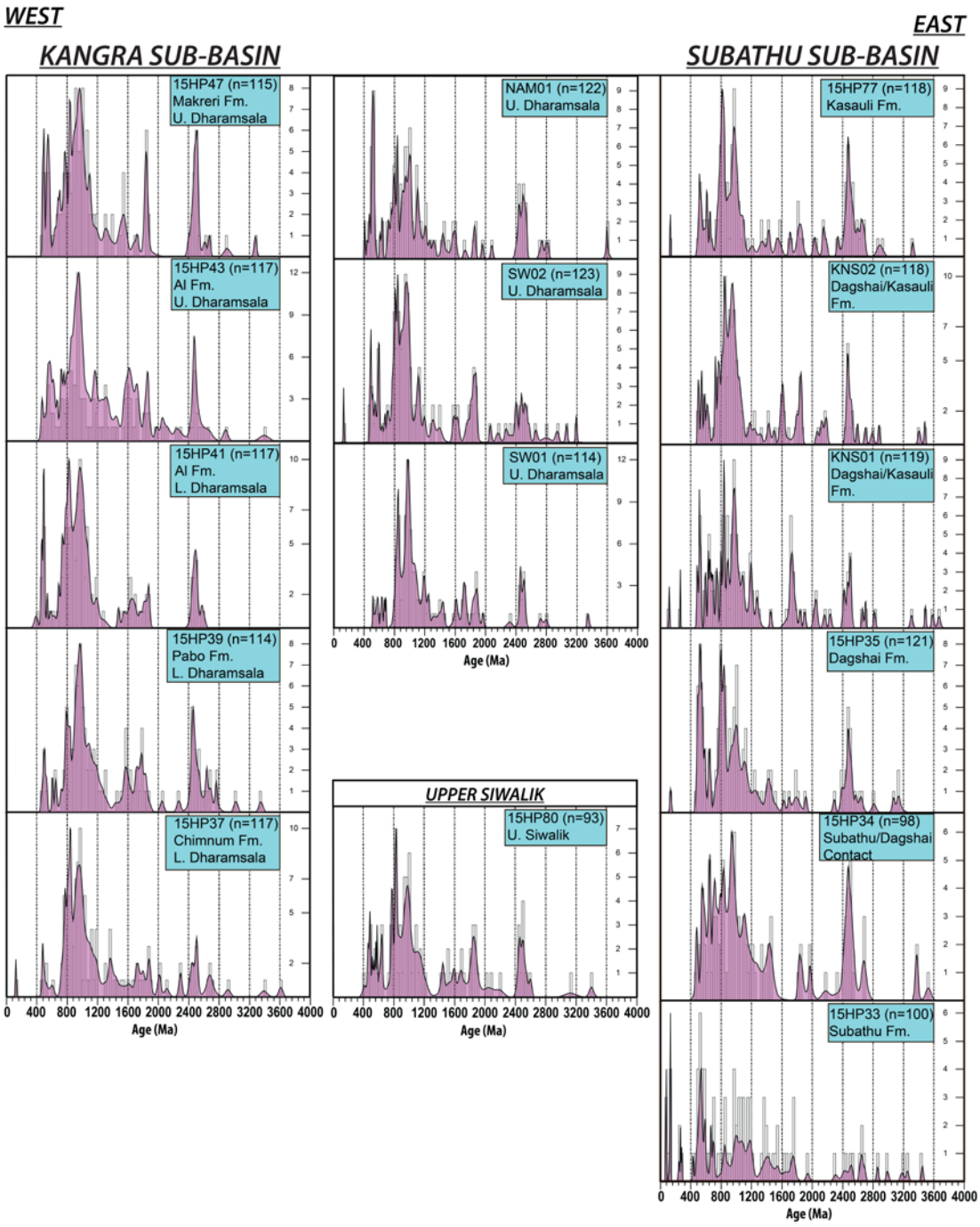


Figure 13: Foreland basin detrital zircon U-Pb results from the Subathu and Kangra sun-basins plotted as probability density plots and histograms. Sample 15HP80 was collected from the Upper Siwaliks just to the east of Chandighar.

spread of ages within this age bracket is similar to that from samples 15HP34 and 15HP35 from the Dagshai Formation.

Sample 15HP77 was collected from the Kasauli Formation along the Kumahatti-Nahan highway section described in Najaman et al. (2004). This sample yielded a similar age spectra to sample 15HP35, with a single Early Cretaceous age grain but with a less predominant 470-600 Ma age peak as seen in sample 15HP35. Two samples (KNS01 and KNS02) were collected stratigraphically in between samples 15HP35 and 15HP77, and also yield very similar age spectra to those from the Dagshai and Kasauli Formation samples, with sample KNS01 yielding one Early Cretaceous age grain of 119 Ma and one Permian age grain of 265 Ma.

***Kangra Sub-basin Detrital Zircon U-Pb Results***

Five samples from the stratigraphically well-constrained ~2 km thick Dharamsala section along the Chimnun-Makreri-Birdhar road to the south of Jogindernagar (White et al., 2001, 2002; Najman et al., 2004, 2009) were collected for detrital zircon U-Pb analyses. From the Lower Dharamsala group, one sample was analyzed from the Chimnum Formation (15HP37) and one sample was collected from the Pabo Formation (15HP39). Both Chimnun and Pabo Formation samples have a very similar age spectra between ~470-3600 Ma, with a major age peak of 800-1100 Ma grains and minor peaks of grains from 1.6-1.8 Ga and 2.5 Ga. Sample 15HP37 from the Chimnum Formation contained a single Cretaceous age grain of ~125 Ma.

Three samples were collected and analyzed from the Upper Dharamsala Formation: two samples from the Al Formation (15HP41 and 15HP43) and one sample from the Makreri Formation (15HP47). The age spectra for all three samples yielded relatively similar results, which are akin to that from the Lower Dharamsala samples. Minor differences in U-Pb ages between these samples include a lack of grains between 2000-2400 Ma in sample 15HP41 from the Al Formation, a minute increase in the relative probability of 1.6-1.8 Ga grains in sample 15HP43 from the Al Formation, and another minute increase in the relative probability of only 1.8 Ga grains in sample 15HP47 from the Makreri Formation. Sample 15HP41 is also the only sample to include grains with Oligocene rim ages, in which two grains yielded rim ages of 31 Ma. Three samples (SW01, SW02, and NAM01) were collected from the Upper Dharamsala to the East of the Kangra Reentrant along sections not as well constrained as those collected near Jogindernagar. All three samples again, yield similar age spectra compared to those collected from the Upper Dharamsala to the west. Of all the samples from the Upper Dharamsala, only sample SW02 contains a single grain of Early Cretaceous age of 127 Ma. Of these three samples, the only minute difference in age population is a larger relative abundance in 500-600 Ma grains.

A single sample (15HP80) from the Upper Siwalik Formation was collected from an outcrop just to the east of Chandigarh and marks the youngest foreland basin deposit analyzed here for detrital zircon U-Pb age populations. Though a near 10 Myr age gap exists in the depositional age of the upper most Dharamsala sample (15HP47) from the

Makreri Formation analyzed here and sample 15HP80 from the Upper Siwaliks, very little difference exists in the age populations between these samples. Like U-Pb ages observed in pre-Siwalik strata in the Subathu and Kangra sub-basins, sample 15HP80 contains an age spectra that ranges between ~420-3400 Ma with age peaks between 500-700 Ma, 800-1100 Ma, 1.6-1.8 Ga, and 2.5 Ga.

All post-Subathu foreland basin samples analyzed here yield rather similar age populations that typically range from ~450-3500 Ma with predominant age peaks typically around 800-1100 Ma and smaller peaks at 450-700 Ma, 1.6-1.8 Ga, and 2.5-2.6 Ga. Five of the fourteen post-Subathu samples analyzed here contained a single Early Cretaceous grain and one of these samples contained a single Permian age grain. The only sample with a significant difference in age population was the single Subathu sample (15HP33) collected from the ~75 meter section which covered the Subathu-Dagshai contact. This Subathu sample contained a relatively high abundance of both Early and Late Cretaceous grains, as well as three Permian age grains, while the remaining age spectra between ~450-3500 Ma was similar to analyses from post-Subathu samples collected here.

***Detrital Zircon (U-Th)/He Results***

After U-Pb analyses, select grains from distinct U-Pb age populations were picked from four samples (15HP37, 15HP41, SW01, and SW02) of the Dharamsala Group for detrital zircon (U-Th)/He analyses, resulting in both a zircon U-Pb age and a (U-Th)/He age from a single grain. These samples span the deposition of strata between ~20-13 Ma.

Results of from DZHe analyses were compiled into probability density plots, which include only Cenozoic age grains (Figure 14).

Sample 15HP37 was collected from the Lower Dharamsala Chimnum Formation from the Kangra Reentrant and marks the lowest stratigraphic level analyzed for DZHe. Results from 20 grains selected for DZHe consists of an age spectra between 19.3-235.0 Ma with a prominent peak of ~21 Ma grains and a smaller peak of 35-40 Ma grains. The youngest three grains from the sample of 19.3, 19.8, and 20.9 Ma average out to 20.0±1.6 Ma, marking a maximum depositional age for this sample.

Sample SW01 was collected from the Upper Dharamsala Group exposed to the east of the Kangra Reentrant, and yielded 22 DZHe ages ranging from 16-362 Ma. DZHe results from this sample consists of a major peak of ~16-17 Ma grains with a relatively minor abundance of 19-24 Ma age grains. The youngest three ages of 16.0, 16.2 and 16.5 Ma give an average age of 16.2±0.5 Ma, which is interpreted as the maximum depositional age for this sample and suggests that this sample, though collected to the east of the well constrained Dharamsala section, is stratigraphically positioned above sample 15HP37.

Sample SW02 was collected to the north of sample SW01 at the base a hanging wall thrust sheet within the Subhimalaya, and the stratigraphic position of this sample is likely above that of SW01. DZHe results from 25 grains give and age range between 15.2-179 Ma and two prominent age peaks are observed at 16-17 Ma grains and 20-23 Ma grains, followed by a relative less abundance of 35-40 Ma grains. The youngest grain

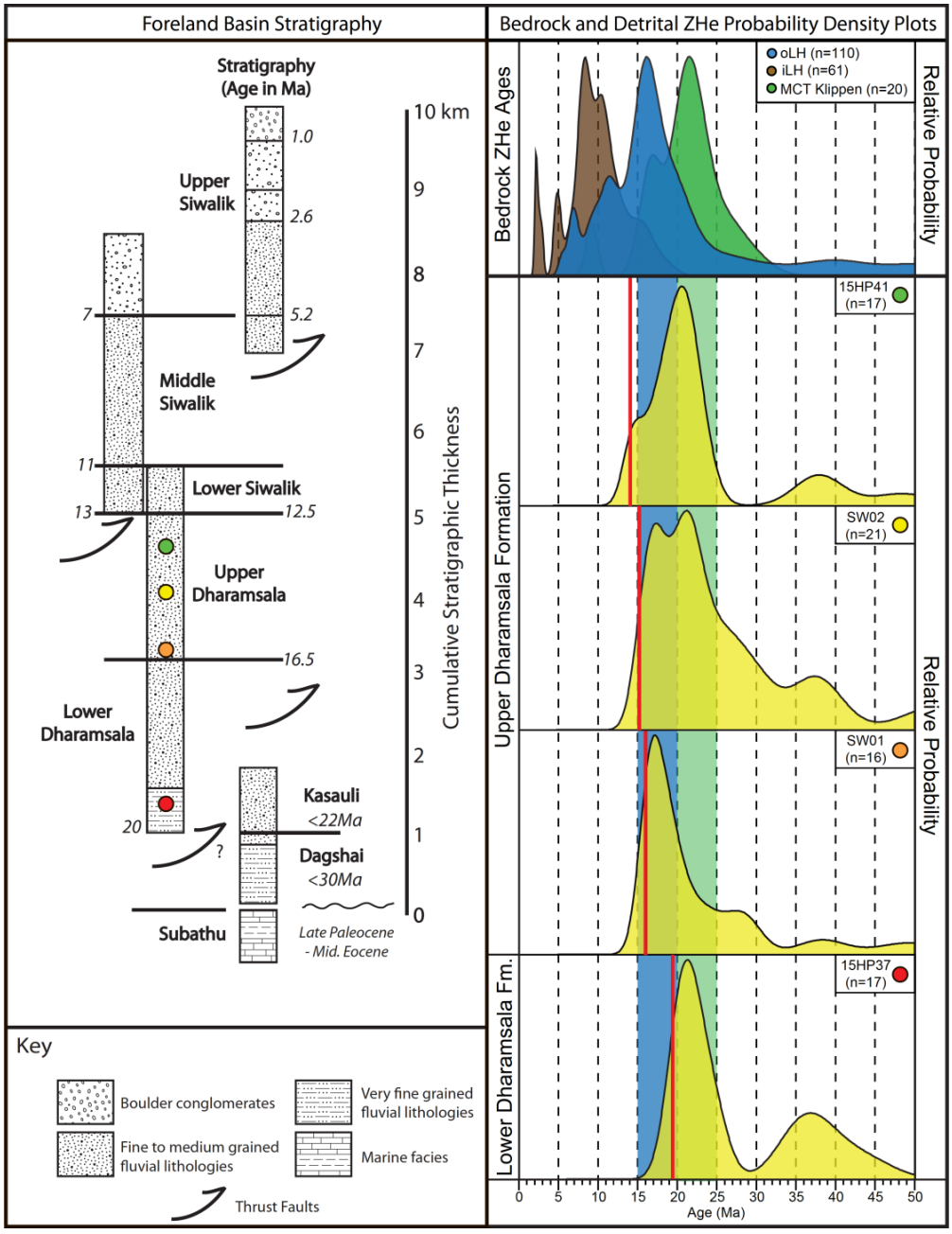


Figure 14: Detrital zircon (U-Th)/He results from four samples analyzed for U-Pb-He in stratigraphic order. A compilation of single grain bedrock zircon (U-Th)/He ages from oLH, iLH, and MCT klippen hanging wall rocks are plotted as probability density plots. The green bar from 20-25 Ma marks a likely source from MCT hangingwall rocks, whereas the blue bar from 15-20 Ma marks a likely source from oLH rocks.

of 15.2 Ma marks the maximum depositional age for this sample, and the next two youngest grains yielded ages of 16.6 and 16.7 Ma. The average age of the youngest three grains from sample SW02 yields an age of 16.2±1.7 Ma.

Sample 15HP41 was collected from the Al Formation of the Upper Dharamsala group from the Kangra Reentrant and marks the highest stratigraphic level from the Dharamsala Group analyzed here. 17 DZHe ages yielded a range from 14.0-48.5 Ma with a predominant unimodal age peak between 20-23 Ma and a less prominent age peak between 35-40 Ma. The youngest grain of 14.0 Ma marks the maximum depositional age of sample 15HP41, and the youngest three grains of 14.0, 15.1, and 16.8 Ma yield an average age of 15.3±2.8 Ma.

***U-Pb-He Double Dating Results***

Each grain analyzed for DZHe has a corresponding U-Pb analyzed by LA-ICP-MS, and these two ages from a single grain may be useful in distinguishing between ambiguities in source location. However, U-Pb-He results presented here have non-unique DZHe or detrital zircon U-Pb age combinations (Figure 15); likely due to the non-unique U-Pb age distribution with in oLH, TH, and GH sequences of the source area. Sample SW01 has the greatest number of pre-Cenozoic cooling ages, but the U-Pb ages spread from ~600 Ma to ~2600 Ma. Sample 15HP41 is the only sample without pre-Cenozoic age DZHe ages, and all Cenozoic DZHe ages from all samples do not have an affinity for any given U-Pb age.

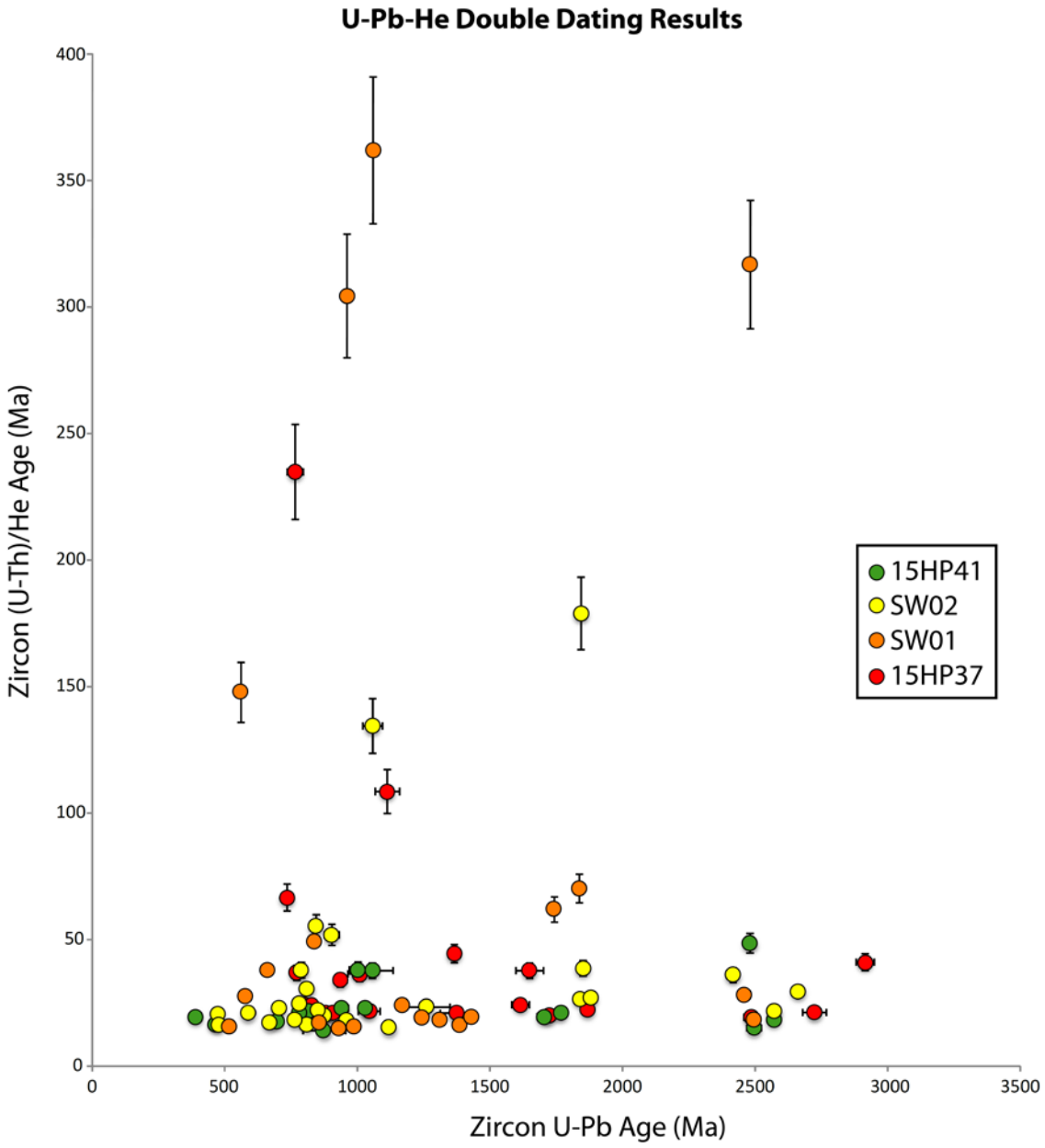


Figure 15: Results from four foreland basin samples analyzed for U-Pb-He plotted as zircon (U-Th)/He age against zircon U-Pb age of the same crystal analyzed.

## DISCUSSION

### Bedrock (U-Th)/He Thermochronometry

Compiled average bedrock ZHe ages show an overall decrease in ages as the distance away from the FT increases (Figures 16 and 17). This northward decrease in ZHe ages away from the FT is likely due to iLH duplexing after emplacement of the oLH and MCT hanging wall rocks to the south, resulting in a northward shift in exhumation. ZHe results also show an overall decrease in ZHe ages from East to West along strike, with some of the youngest ZHe ages of ~3-7 Ma occurring within the Kullu-Rampur Window along the Sutlej Valley. This trend is best observed within LH ZHe ages collected. To the far east along the Lansdowne transect, oLH ages from the Krol-Tal belt yield ZHe of ~16-17 Ma, whereas to the far west along the Sutlej transect, oLH ZHe ages Shimla group rocks yield younger ZHe ages of ~10-12 Ma. This East to West decrease in oLH ZHe ages is observed from samples collected structurally beneath MCT hanging wall klippen closest to the FT, and ZHe ages from these klippen generally yield older ZHe ages of ~20-23 Ma with little east to west variance in age. This relationship suggests diachronous regional deformation within the LH, and rather uniform Early Miocene regional deformation along the MCT in northwest India.

Within samples collect along the Sutlej and Lansdowne transects, no correlation between sample elevation and ZHe is observed (Figure 18). However, samples collected from the Mussoorie/Yamuna transect show a strong, steep vertical correlation between sample elevation and ZHe age (Figure 18). These data show uniform ZHe ages between

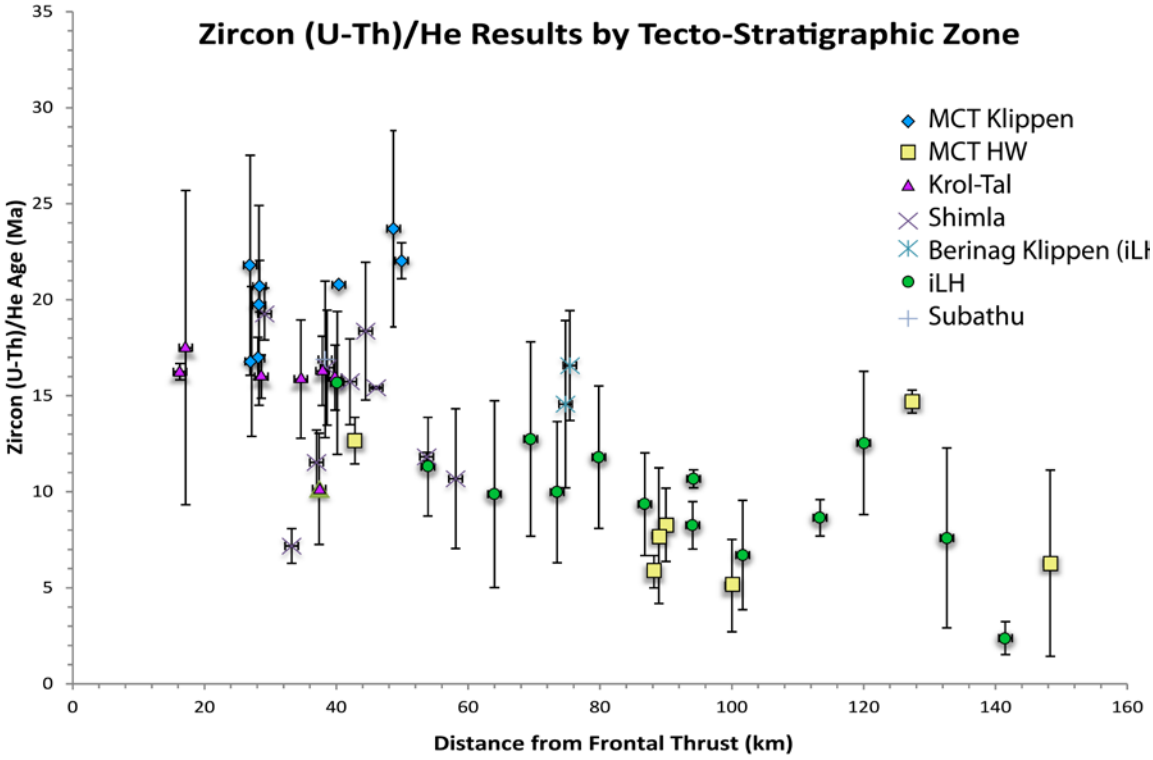


Figure 16: Bedrock zircon (U-Th)/He ages by tectono-stratigraphic zone plotted against horizontal distance away from Frontal Thrust.

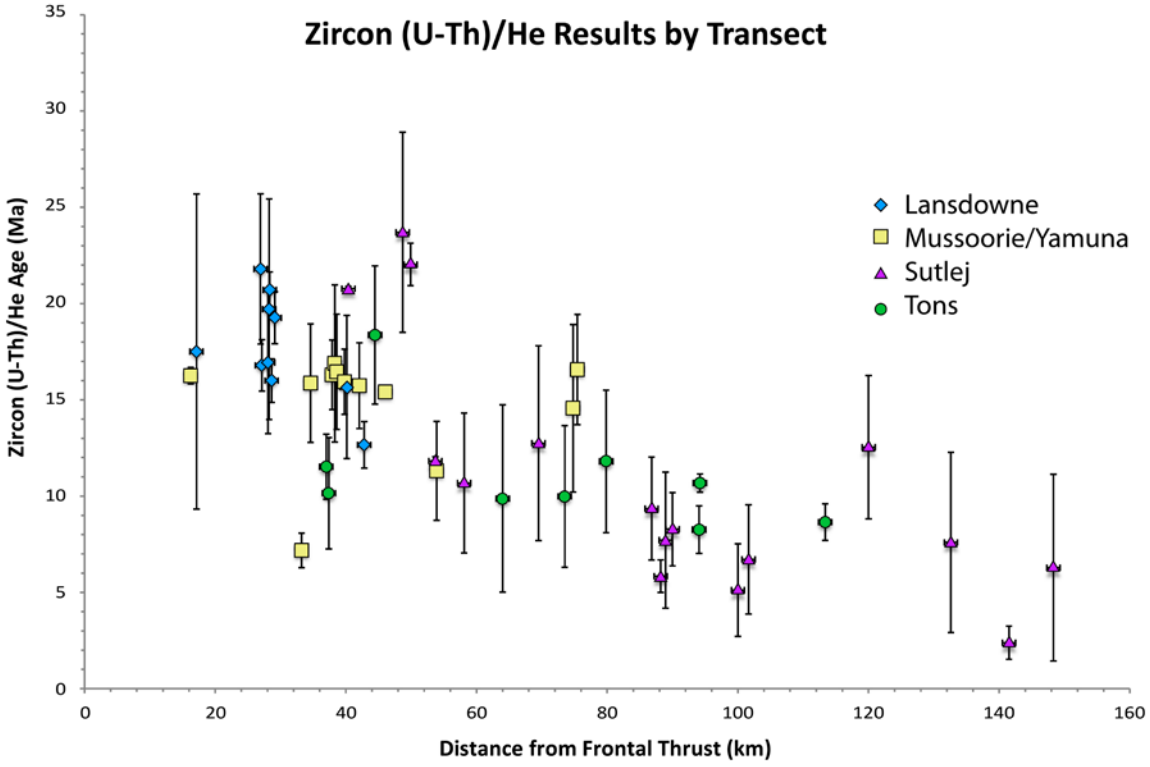


Figure 17: Bedrock zircon (U-Th)/He ages by transect plotted against horizontal distance away from Frontal Thrust.

15-17 Ma for ~2 km in elevation, suggesting at a first order rapid exhumation of these rocks at this time. Further work with these data will include first-order two-dimensional modeling to compute approximate exhumation rates of these rocks at this time. This trend is also observed in relation to stratigraphic thickness within the oLH of the Mussoorie syncline. Here, uniform ZHe ages of ~16 Ma are observed within an ~2-3 km of oLH section, from the base of the Blaini diamictite to the Subathu Formation which overlies the Upper Tal Formation here (Figure 19). This relationship indicates that oLH rocks, specifically rocks from the Krol-Tal belt, were rapidly exhumed at this time.

Further to the west in the Chamba region, an opposite northward trend is observed in ZHe and AFT ages, such that cooling ages increase to the north away from the frontal thrust (Deeken et al., 2011). These opposite trends in cooling ages observed are likely due to a combination of differing structural styles (i.e., iLH duplexing to the east and the lack of mid-ramp structures to the west near Chamba) and differences in where orographic induced monsoonal precipitation is focused (Deeken et al., 2011; Thiede et al., 2004).

This overall western decrease in ZHe ages within the iLH observed here likely reflect a westward advancement and propagation of duplexing within the iLH, with the Kullu-Rampur window marking the western most extent of iLH duplexing where the youngest ZHe ages are observed. However, it is unclear of what is primarily driving this shift in structural styles between that observed within and east of the Kullu-Rampur window, and that observed in the Chamba region. Some mechanism or combination of

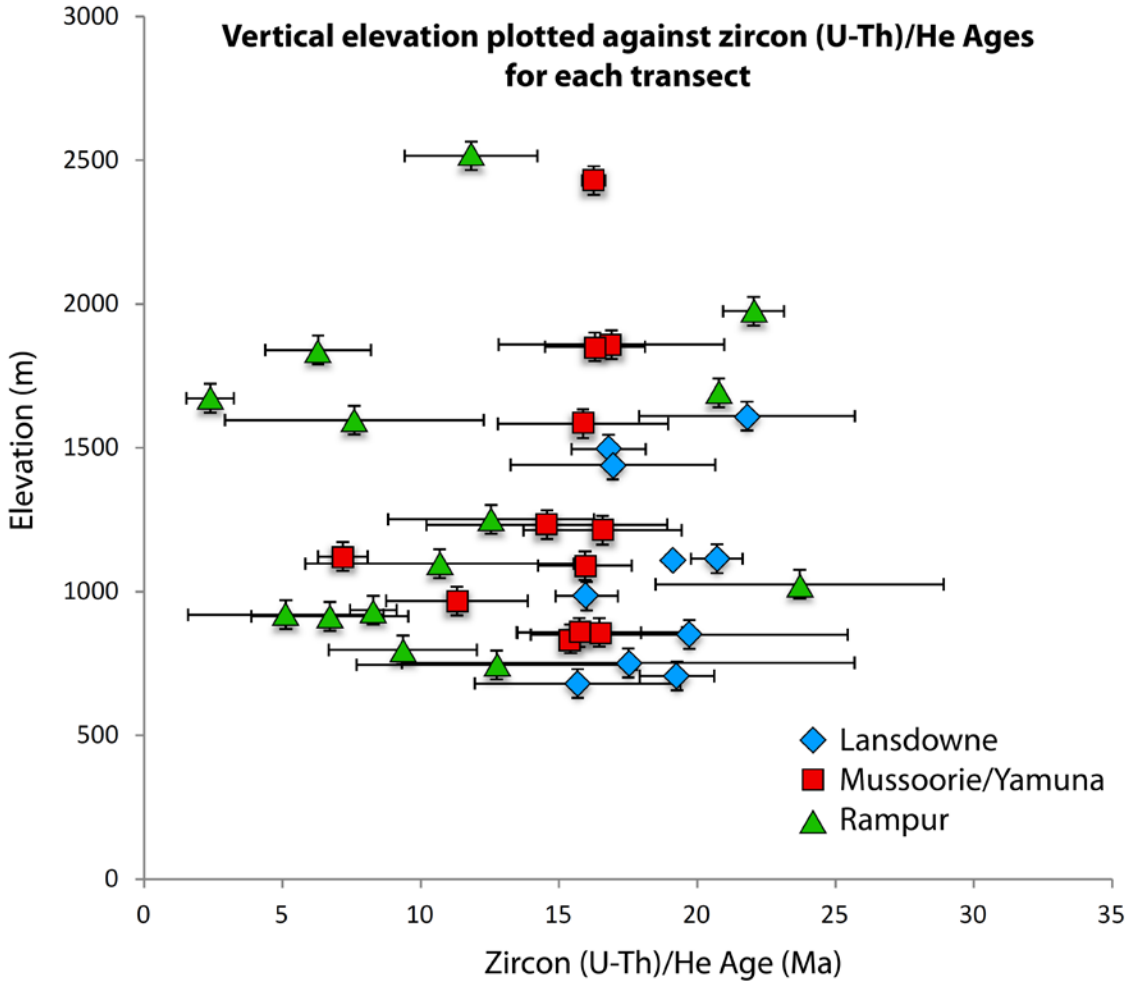


Figure 18: Plot of vertical elevation against zircon (U-Th)/He ages for each bedrock sample. No strong correlation occurs in samples collected along the Lansdowne and Rampur transects. Samples from the Mussoorrie transect show uniform 15-17 Ma ages within ~2 km.

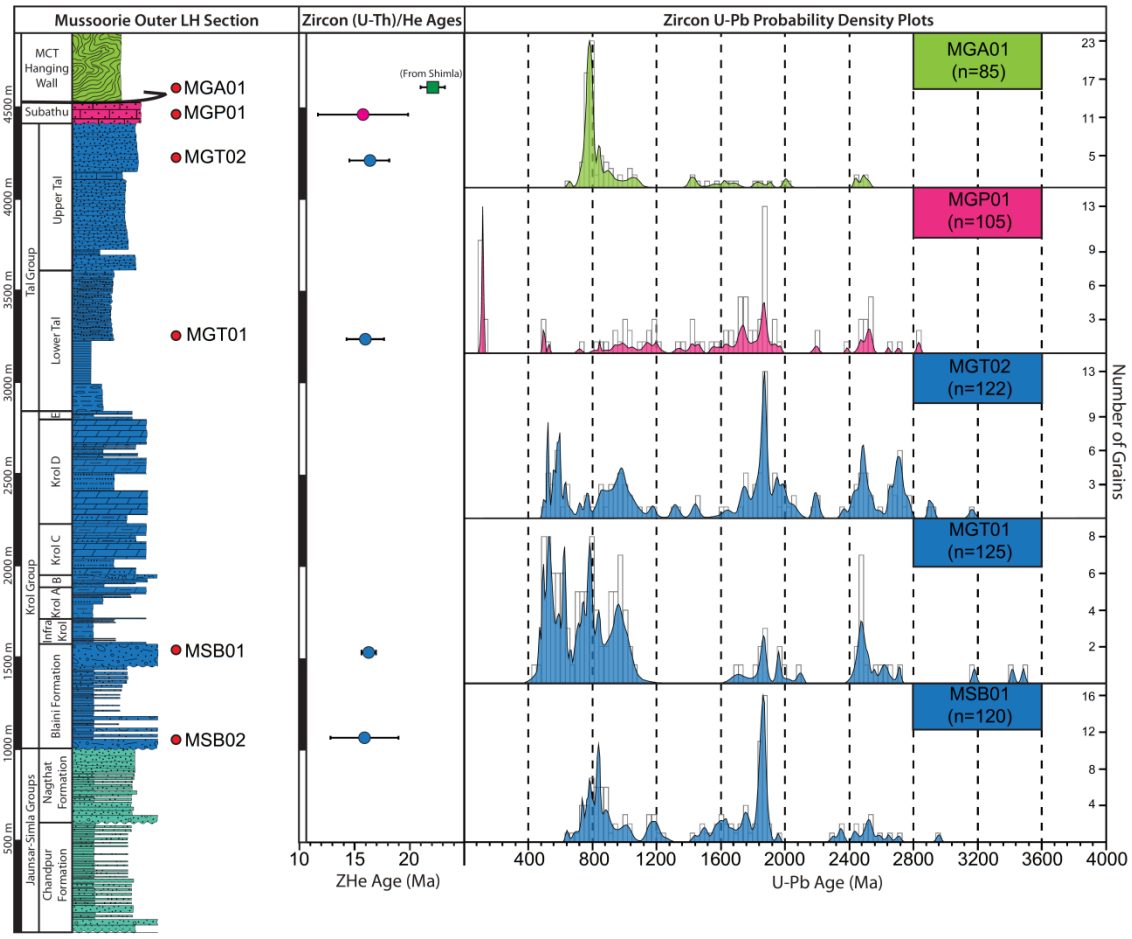


Figure 19: Bedrock U-Pb and (U-Th)/He results from the Mussoorie Syncline. The stratigraphic position of samples collected for analyses are marked on an idealized stratigraphic section of the oLH in Mussoorie. Zircon (U-Th)/He ages show a uniform ~16 Ma age throughout ~3 km of section from the base of the Blaini diamictite to the Subathu formation with lies unconformably above the Upper Tal Formation.

mechanisms must be present to partition deformation to the north where iLH duplexing is presently observed including inherited structural weaknesses, climatically induced erosion, and/or rapid basin sedimentation that may temporarily hinder southward propagation of thrusting.

**Tectonic Models**

Bedrock zircon (U-Th)/He data collected here from the Himalaya of northwest India yielded average ages of ~15.3 Ma for oLH rocks, ~10.5 Ma for iLH rocks, and ~20.8 Ma for MCT klippen preserved closest to the FT. These ages are in agreement with the predicted ages for the short traveled oLH tectonic model (Webb et al., 2011; Yu et al., 2015) (Figure 7), suggesting that the oLH was in a more proximal setting along the North Indian passive margin before Himalayan deformation. These results imply that observed oLH ZHe cooling ages presented here are the result of the rapid passage of oLH rocks through the ZHe cooling window due to displacement along the Tons Thrust. Older ZHe ages from the various MCT hanging klippen of ~21 Ma are always structurally above oLH strata with younger ZHe ages between 11-16 Ma, suggesting that rocks of the MCT hanging were structurally emplaced above the LH before any LH deformation. This trend indicates in-sequence activation of the Tons Thrust due to southward propagation of thrusting away from the MCT at a minimal constraint of ~16 Ma, marked by the average of the oldest oLH ZHe ages observed in this study. Bedrock ZHe ages generally tend to decrease the farther north away from the FT, and oLH and iLH ages from samples collected closest to the Tons Thrust generally have similar ages. These similar ages

between the oLH and iLH suggest the probable timing of folding of the Tons Thrust at ~11 Ma due to the initiation of duplexing within the iLH at this time, resulting in the present southward dip orientation of the Tons Thrust. Support for this tectonic model has broad implications for both the exhumation evolution of the LH of northwest India and observed shifts in Neogene seawater chemistry, as discussed in Chapter 2.

**Berinag Thrust and Tons Thrust Relationship**

The geometric relationships between the Berinag Thrust and the Tons Thrust are poorly understood and their kinematic histories have important implications for structural development of the Uttarkashi half-window where the iLH is presently exposed. Possible geometric and kinematic relationships of the Tons and Berinag thrust have been proposed by Webb and others (2011) (Figure 20). Three separate geometries are possible, one of which suggests that the Berinag thrust and Tons thrust are a single structure. A second geometry suggests that the Tons thrust terminates along the Berinag thrust. A final geometry suggests the opposite, with the Berinag thrust terminating along the Tons thrust. The latter two geometries are possible by either out-of-sequence faulting or by the accretion of footwall wedges to the hanging wall.

Bedrock ZHe results from the Mussoorie/Yamuna River transect provide insight into this relationship. ZHe cooling ages within the Tons thrust hanging wall yield uniform ~16 Ma ages throughout, and one sample from the iLH just north of the Tons thrust yielded an age of ~11 Ma. Just to the north of this sample, two samples from a small klippen of the Berinag thrust hanging wall preserved ZHe cooling ages of ~15.0 Ma and

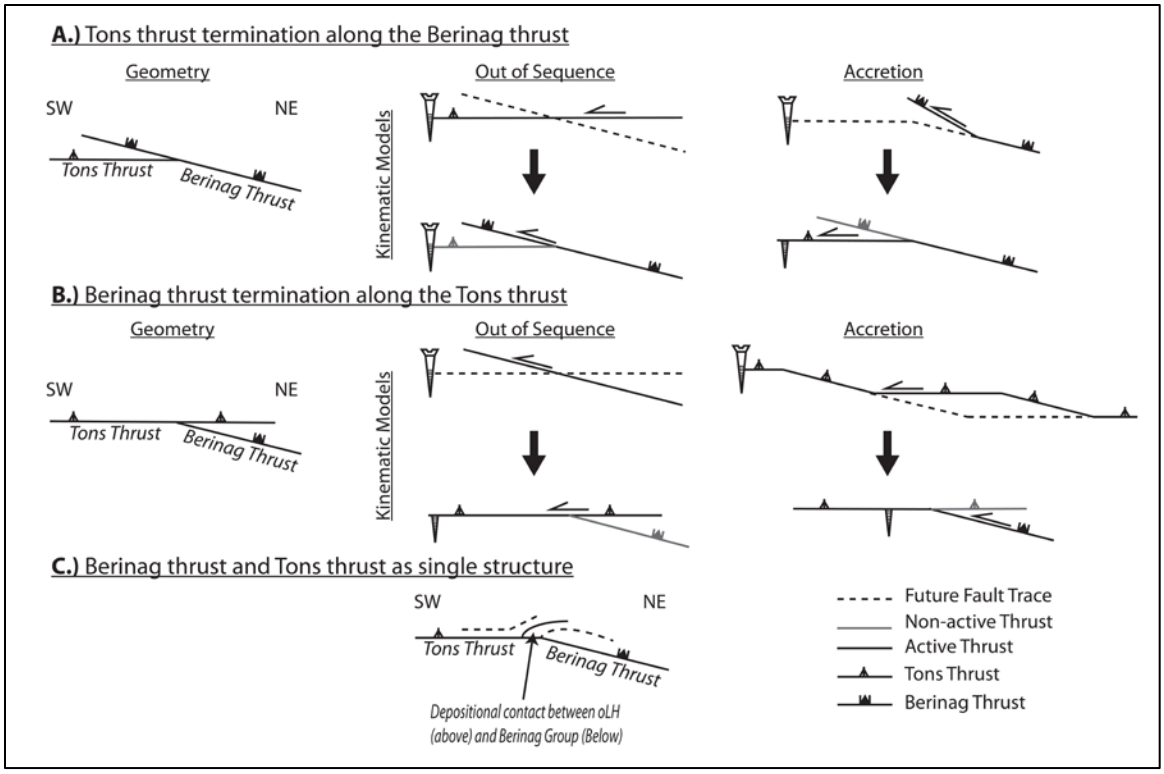


Figure 20: Possible geometric and kinematic relationships between the Tons thrust and Berinag thrust. From Webb et al. (2011).

16.6 Ma, similar to ZHe ages from the Tons hanging wall ~30 km to the south. If, like klippens of MCT hanging wall rocks, these ages from the Berinag klippen preserves a remnant of cooling ages related to thrusting rather than local exhumation, the equivalent ages from Berinag hanging wall rocks and oLH rocks suggests that the Tons thrust and Berinag thrust are part of a single structure with a depositional contact between the oLH and Berinag group. Evidence for a depositional contact between the oLH and Berinag Group rocks has broad implications into how these structures link to similar structures to the east in Nepal, and more work must be carried out to link these structures and LH relationships between these regions.

## Exhumational Evolution of the Lesser Himalaya

### *Zircon U-Pb Constraints*

The coupling of bedrock and detrital zircon geo-/thermochronometry presented here provide valuable insight into the Neogene exhumational evolution of the LH of northwest India. While new bedrock U-Pb geochronometric data presented here provide important constraints on the structural position for samples collected, these results do not provide unique U-Pb age signatures necessary to distinguish between different source area contributions to the age signatures observed in the Early-Mid Miocene foreland basin U-Pb results. Neoproterozoic- Cambrian strata of the oLH and MCT hanging wall all yield similar, non-unique detrital zircon U-Pb age populations, and are in agreement with analyses from past studies (Myrow et al., 2003, 2010, 2015; Webb et al., 2011; McKenzie et al., 2011; Mandal et al., 2014). Uniform ages from these sequences are also

in agreement with a continuous proximal to distal deposition of these units along the northern passive margin of India before Himalayan deformation (Searle, 1986; Brookfield, 1993; Corfield and Searle, 2000; Myrow et al., 2003, 2015; McKenzie et al., 2011). iLH strata provide the only unique U-Pb signatures that lack detrital zircon U-Pb ages younger than ~1.6 Ga and often have prominent peaks of 1.6-1.8 Ga grains (Figure 8) (McKenzie et al., 2011; Webb et al., 2011; Myrow et al., 2015).

Early to Mid-Miocene foreland basin deposits from the Subathu and Kangra sub-basins yield very similar detrital zircon U-Pb ages throughout the entire 4-5 km Dharamsala section sampled and the Dagshai and Kasauli sections sampled. These age populations likely reflect the erosional products sourced from oLH strata, MCT hanging wall strata, and varying Early Paleozoic granites (ex. Sample BRI01) and ~830 Ma MCT hanging wall gneisses (Webb et al., 2011) at the time of deposition of these rocks. No significant increase in 1.6-1.8 Ga grains occurs throughout these Early-Mid Miocene sections, suggesting that the iLH has yet to breach the surface during this time. However, a single sample from the Upper Siwaliks (15HP80) also contains a similar age signature compared to that of the pre-Siwalik U-Pb signatures, with no difference in the abundance of 1.6-1.8 Ga grains despite evidence for exposure of iLH rocks during Upper Siwalik deposition (DeCelles et al., 2004; Bernet et al., 2006; Najman et al., 2009). This suggests that either a sudden increase in the abundance of 1.6-1.8 Ga grains must be observed from foreland basin rocks deposited after ~11 Ma that then get diluted out, or that U-Pb

detrital zircon geochronology is not capable of resolving the initial timing of iLH unroofing.

### *Zircon (U-Th)/He Constraints*

Data collected for zircon U-Pb provenance here cannot decipher between oLH and MCT hanging wall sources in Early to Mid-Miocene foreland basin deposits due to the non-unique age. In contrast, detrital ZHe results from four select Dharamsala samples, coupled with a compilation of bedrock ZHe from the source region, appear to be capable of resolving this issue and allow for reconstruction of a well-constrained model for the exhumational evolution of the LH of northwest India (Figure 21). While bedrock samples from MCT hanging wall rocks often yield younger Late Miocene ZHe cooling ages reflecting more recent exhumation, ZHe ages collected from various MCT hanging wall klippen preserve remnants of Early Miocene exhumation. For this reason, we assume that the MCT hanging wall has a continuous Cenozoic source contribution, though minor at times, and only use bedrock ZHe ages preserved within MCT klippen to base our interpretations for Oligocene to Early Miocene exhumation.

While the results presented here focus primarily on Neogene Himalayan exhumation, the Early Cenozoic evolution of Himalaya tectonics consisted of Eocene contraction and crustal thickening of the Tethyan fold and thrust belt with burial and metamorphism of the TH and GH initiating by 45-40 Ma at the approximate timing of MCT activation (Wiesmayr and Grasemann, 2002; Catlos et al., 2004, 2007; Chambers et al., 2009; Webb et al., 2011, 2013; Schlup et al., 2011). Sample 15HP37 from the

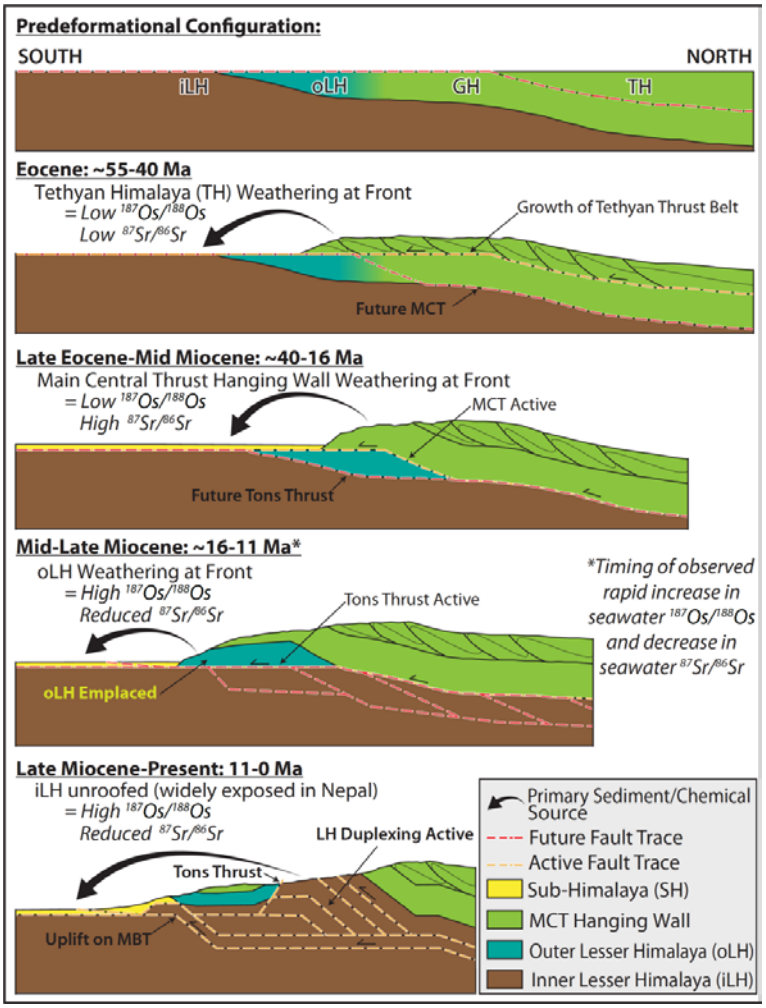


Figure 21: Schematic model for the exhumational evolution of northwest India. Current bedrock and foreland basin data suggest southward propagation of thrusting away from the MCT and in-sequence activation of the Tons Thrust at ~16 Ma, resulting in a shift in exhumation from MCT hanging wall rocks high in $^{87}Sr/^{86}Sr$ to oLH rocks low in $^{87}Sr/^{86}Sr$ and high in $^{187}Os/^{188}Os$. iLH duplexing begins to develop at ~11 Ma and folds the Tons Thrust to its modern day south dipping structure. As late Miocene iLH duplexing developed, the zone of exhumation began to shift northward and the iLH, relatively high in $^{187}Os/^{188}Os$, breached the surface. Exhumation along the MBT initiated by ~7 Ma. Modified after Yu et al. (2015).

Chimnum Formation of the Lower Dharasamala subgroup has a likely depositional age of ~19-17 Ma (White et al., 2002; Najman et al., 2004), and the DZHe results show a predominant peak of ~20-25 Ma grains, suggestive of the MCT hanging wall as a major source for detritus at ~19 Ma. At ~16 Ma, a major shift of provenance occurs within the foreland basin (White et al., 2002; Najman et al., 2009). New DZHe results suggest a southward advancement of thrusting away from the MCT and in-sequence activation of the Tons Thrust, leading to exhumation of oLH strata. Sample SW01 collected from the Upper Dharamsala subgroup has a depositional age of ~16-13 Ma and DZHe results yielded a major peak of ~16-17 Ma grains suggesting a focused, rapid exhumation of oLH strata during this time which sourced a large majority of material into the basin at this time (Figures 14, 18, and 19). At ~14-15 Ma, exhumation shifted northward away from the Himalayan front likely due to duplexing within the iLH at depth, resulting in the mixing of oLH and MCT hanging wall material into the foreland basin at this time as observed in DZHe results from sample SW02 collected stratigraphically above SW01. From ~13-14 Ma, the oLH still contributed to the erosional products shed into the basin, but MCT hanging wall rocks directly above the iLH provided the majority of source material into the basin as evident from DZHe results from sample 15HP41. This trend likely continues until the iLH breaches the surface, likely around ~11-10 Ma constrained by bedrock ZHe ages from the iLH and from oLH rocks closest to the Tons Thrust. At present, no evidence from the foreland basin of northwest India provide direct constraints

on the initial timing of iLH exposure, but further U-Pb, DZHe, and bulk rock Nd isotopic analyses may resolve this issue.

**Subathu Unconformity**

Detrital zircon U-Pb results from the shallow marine Subathu Formation provide important implications for the evolution of the Late Paleocene to Eocene foreland basin of northwest India. Sample MGP01 was collected from of the Subathu Formation deposited unconformably above oLH strata, thus providing constraints for the basal Subathu formation. Sample 15HP33 was collected from the Subathu/Dagshai contact and proves constraints for the uppermost Subathu deposits preserved beneath this unconformity. Results from the basal Sabuthu yielded a significant peak of Early Cretaceous grains ranging from 105-125 Ma, whereas results from the Upper Subathu yielded Late Cretaceous age grains from 69-82 Ma, as well as Early Cretaceous grains from 120-132 Ma.

The source of these Cretaceous age grains within the Subathu Formation is not well understood, but we speculate a possible source from the Kohistan-Ladakh Arc associated with the Trans Tethyan subduction system (Jagoutz et al., 2015) for the 105-125 Ma grains and from the Karakoram-Gangdese Arc associated with the Southern Eurasian Margin for the younger 69-82 Ma grains observed in the Upper Subathu Formation sampled. Given this association, it is likely that sample MGP01 was deposited within the Singtali Basin (Najman et al., 1993) unconformably above the LH with Early Cretaceous grains supplied from the Kohistan Arc. As the Indian margin migrated north,

subduction along the Trans Tethyan subduction system likely came to a halt between 105-82 Ma, shutting down the Kohistan Arc. Younger 69-82 Ma grains observed from the Upper Subathu sample collected at the Subathu/Dagshai contact are possibly sourced from erosional products from the Indus-Yarlung suture zone after collision initiated, or from the Karakoram-Gangdese Arc as the Indian Margin continued to migrate north until collision initiated, which would suggest earlier collision. Detrital zircon U-Pb ages presented here from the Subathu formations raise much speculation and more work is necessary to constrain the sources of these grains.

U-Pb results from the Subathu/Dagshai contact also provide important insight into the stratigraphic location of the unconformity between the shallow marine and non-marine facies of the Subathu and Dagshai Formations. Bera and others (2008) argue that the unconformity between the Subathu and the Dagshai Formations is marked at the top of the distinct white sandstone marker bed, such that the white sandstone marine and cannot be included in the alluvial sediments of the Dagshai Formation. However, our U-Pb results clearly show that the unconformity is marked at the base of the white sandstone, given the complete absence of Cretaceous aged grains observed in the Subathu Formation directly below. These results provide some preliminary insight into some of the broad implications the Subathu Formation has for Early Cenozoic foreland basin and Himalaya evolution, and further work should be carried out.

## CONCLUSION

This study provides important geo-/ thermochronometric constraints on the kinematic and exhumational evolution of the LH of northwest India. Detrital zircon U-Pb results from oLH and MCT hanging wall rocks are in agreement with past studies and show non-unique U-Pb age distributions between these two zones. Detrital zircon U-Pb results from all Miocene foreland basin deposits analyzed show very similar U-Pb age distributions. Because of the lack of distinguishable U-Pb ages, bedrock and foreland basin age distributions cannot be utilized to decipher between oLH and MCT hanging wall sources. While iLH rocks lack U-Pb ages older than ~1.6 Ga, no significant increase in ~1.6-1.8 Ga ages is observed in foreland basin samples analyzed. This suggests that the iLH did not breach the surface before ~11 Ma. Samples analyzed from the Paleogene Subathu Formation yielded zircon U-Pb signatures that are distinct from the Miocene foreland basin deposits with an abundance of Cretaceous age grains present. These results have broad implications for the evolution of the early Himalayan foreland basin, and we speculate a possible source from the Kohistan-Ladakh Arc for these Early Cretaceous grains.

Bedrock ZHe results presented here test two contrasting kinematic models for the origin of the Tons thrust and oLH emplacement, and provide support for a short-traveled oLH tectonic model in which the oLH is emplaced by in-sequence thrusting along the Tons thrust during the mid-late Miocene (Webb et al., 2011). Bedrock ZHe data indicate rapid passage of oLH strata and iLH Berinag group rocks through the ZHe cooling

window at ~16 Ma due to displacement along the Tons thrust. These results also suggest that the Tons Thrust and Berinag Thrust are part of a single continuous structure, such that oLH rocks are at a depositional contact above Berinag Group rocks of the iLH. This structural relationship has broad implications for understanding how these structures link to the east in Nepal, and more work should be carried out. Spatially, bedrock ZHe ages show a general trend that decrease in age both to the north into where iLH duplexing is present and to the west towards the Kullu-Rampur window. This trend suggests a westward advancement of iLH duplexing, and the climatic interaction with iLH duplexing greatly influences where exhumation is focused and where some of the youngest ZHe ages are present. However, it is remains unclear what is primarily driving iLH duplexing. The coupling of bedrock and detrital ZHe data suggest initial unroofing and rapid exhumation of oLH strata at ~16 Ma, after which exhumation shifted to the north to remove MCT hanging wall rocks above developing iLH duplex structures. We speculate that iLH strata breeched the surface at ~11 Ma, but presently lack direct evidence for the onset of iLH erosion and deposition of this material into the foreland basin. The results presented here provide valuable insight into the exhumation of the LH in northwest India and provide broader implications into the relationship between Himalayan weathering and observed shifts in the global isotopic composition of Cenozoic seawater discussed below in Chapter 2.

# Chapter 2: Himalayan thrust belt exhumation, weathering, and Cenozoic seawater chemistry

## INTRODUCTION

Weathering processes play fundamental roles in regulating atmospheric $CO_2$. Foremost, the weathering of calcium-silicate minerals provides an important mechanism to drawdown $CO_2$, helping to stabilize Earth's climate (Berner et al., 1983; Kump et al., 2000). Conversely, shifts in the extent of oxidative weathering of sulfides coupled to carbonate dissolution may be a geologically significant atmospheric $CO_2$ source (Torres et al., 2014). The importance of weathering processes on long-term carbon cycling motivates efforts to track the extent of global weathering through geologic time (Misra and Froelich, 2012). Seawater strontium ($^{87}Sr/^{86}Sr_{(sw)}$) and osmium ($^{187}Os/^{188}Os_{(sw)}$) isotopic records have emerged as two principal global weathering proxies. The isotopic composition of seawater Sr and Os represents a balance between riverine flux, derived from subaerial chemical weathering of crustal rocks, and oceanic hydrothermal flux. Mantle-derived hydrothermal input is depleted in radiogenic $^{87}Sr$ and $^{187}Os$, whereas continental crust is isotopically enriched in them. Therefore, increases in global continental silicate weathering are thought to generate increases in $^{87}Sr/^{86}Sr_{(sw)}$ and $^{187}Os/^{188}Os_{(sw)}$. Various crustal rocks contain appreciable amounts of radiogenic $^{87}Sr$ that can be supplied to the ocean from weathering, albeit the weathering efficiency of different rock types can influence the relative contributions of Sr from a given region (Edmond, 1992; Harris, 1995; Quade et al., 2003). Organic-rich black shales are markedly enriched in labile Os and dominate the riverine flux (Pegram et al., 1992;

Peucker-Ehrenbrink and Ravizza, 2000). Consequently, marine Os isotope records are thought to track the global extent of black shale weathering, likely linked to sulfide oxidation, whereas Sr isotopes are assumed to track overall silicate weathering (Torres et al., 2014). Given the non-homogeneous spatial and stratigraphic distribution of crustal rock compositions and spatiotemporal variance in tectonic unroofing, there is potential for regional influence on seawater Os and Sr isotope records. Here we attempt to directly constrain the exhumational evolution of anomalous, isotopically enriched Himalayan source rock necessary to elucidate the relationship between regional source rock weathering and observed shifts in Cenozoic seawater chemistry.

## HIMALAYAN OROGENESIS AND CENOZOIC SEAWATER CHEMISTRY

The Himalayan system contributes major weathering fluxes to the ocean (West et al., 2002). The Himalayan thrust belt consists of distinct fault-bounded tectonostratigraphic zones: from south to north, the Sub Himalaya (SH), Lesser Himalaya (LH), and Main Central Thrust (MCT) hanging wall that includes the Greater Himalaya crystallines (GH) and Tethyan Himalaya (TH) (Figure 1). Rocks in these discrete zones have distinct Sr and Os isotopic compositions. Crystalline GH rocks generally yield high $^{87}Sr/^{86}Sr$ values and low $^{187}Os/^{188}Os$ values (Ahmad et al., 2000; Edmond, 1992; Pierson-Wickmann et al., 2000). Prolific black shale beds in the LH yield anomalously high $^{187}Os/^{188}Os$ values compared to the GH and TH (Pierson-Wickmann et al., 2000; Singh et al., 1999). Abundant LH carbonates, which dominate the LH $^{87}Sr/^{86}Sr$ weathering flux, are lower in $^{87}Sr/^{86}Sr$ than the GH. The continuous rise in $^{87}Sr/^{86}Sr_{(sw)}$ that initiated at

~35 Ma has long been attributed to weathering associated with Cenozoic Himalayan–Tibetan uplift, although it remains unclear whether this reflects an overall increase in the extent of silicate weathering (Raymo and Ruddiman, 1992) or the exhumation and weathering of markedly radiogenic bedrock (Edmond, 1992; Myrow et al., 2015). Following a ~15 Myr period of relative stasis, a notable increase in $^{187}Os/^{188}Os_{(sw)}$ initiated at 16 Ma (Figure 22a), which was also attributed to Himalayan uplift based on broad temporal coincidence (Pegram et al., 1992). This observed shift was further linked to exhumation of $^{187}Os$-enriched LH black shales (Pierson-Wickmann et al., 2000; Singh et al., 1999), although this correlation was impeded by an assumed later ~11 Ma LH unroofing age (Chesley et al., 2000).

Recent advances in reconstructing the kinematic evolution and stratigraphic architecture of the northwest Indian Himalaya, however, appear to support earlier exhumation of the black shale bearing LH rocks at ~16 Ma. These revised kinematic models, coupled with mass-balance modeling that showed a profound Os contribution from a discrete LH black shale unit, prompted the proposal that the rapid increase in $^{187}Os/^{188}Os_{(sw)}$ and coeval decrease in $^{87}Sr/^{86}Sr_{(sw)}$ at ~16 Ma (Figure 22a) resulted from a southward thrust advance and shift in exhumation away from MCT hanging wall rocks and into low-grade metasedimentary rocks of the LH (Myrow et al., 2015). Importantly, mass-balance models demonstrate that the Neogene seawater record can be explained solely by compositional changes in the material being weathered in different Himalayan

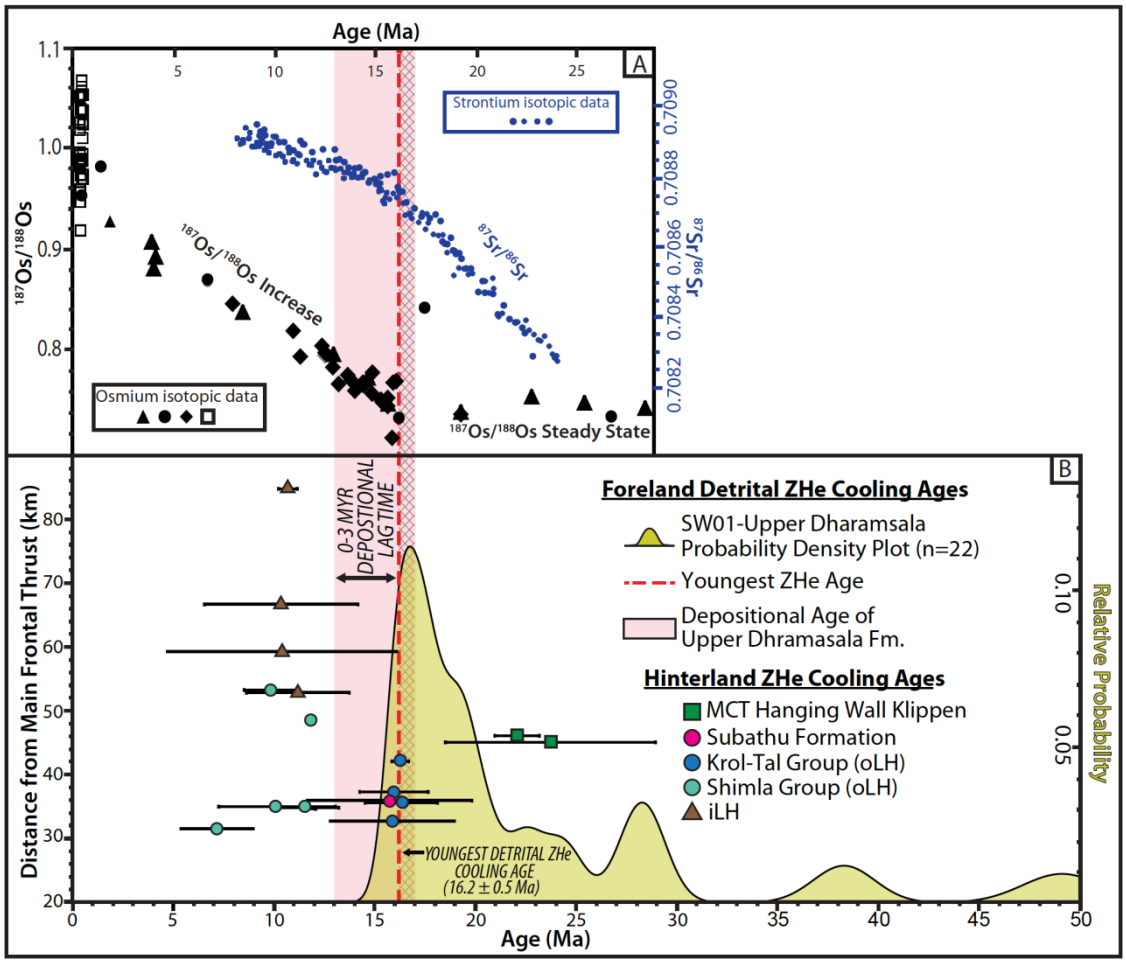


Figure 22: (A) Global $^{187}Os/^{188}Os$ and $^{87}Sr/^{86}Sr$ Neogene seawater records with (B) Himalayan ZHe ages. The pink bar represents the depositional age range of the Upper Dharamsala Formation. Detrital ZHe results from sample SW01 are represented by the yellow probability density plot. Bedrock ZHe ages are plotted as sample averages in relation to their distance from the Main Frontal Thrust. Seawater records from Myrow et al. (2015).

thrust sheets without any change in global silicate weathering. Corroboration of this model would question the utility of these seawater records as weathering proxies to track global $CO_2$ variation throughout Earth history.

The hypothesized earlier 16 Ma LH exhumation was primarily based on qualitative constraints derived from regional foreland basin records, with additional support provided by evidence for LH deformation prior to 11 Ma in regions further along strike. Foreland provenance shifts at ~16 Ma are recorded by an overall upward coarsening of clastic deposits, a decreased contribution of metamorphic detritus, and a marked increase in depositional 'lag time'— the temporal difference between cooling during exhumation and deposition (Reiners and Brandon, 2006; Ruiz et al., 2004)— of detrital white-mica $^{40}Ar/^{39}Ar$ ages representing a shift from high-grade white-mica bearing MCT hanging wall (GH) rocks to low-grade LH rocks that lack Cenozoic age white-mica (Najman et al., 2009; White et al., 2002) (but see (Myrow et al., 2015)). While these data imply early exhumation of LH rocks, they are based on indirect constraints and remain speculative.

The LH resides structurally in the footwall of the MCT, with numerous MCT hanging wall klippen preserved above LH rocks, and is juxtaposed against Cenozoic SH foreland basin deposits to the south by the Main Boundary Thrust (MBT) system (Figure 1). The now south-dipping Tons Thrust separates the LH into the 'inner' and 'outer' zones (iLH and oLH, respectively), with the iLH in the footwall and the oLH in the hanging wall (Celerier et al., 2009; Webb et al., 2011; Yu et al., 2015) (Figure 1). The

iLH consists primarily of low-grade Paleoproterozoic–Mesoproterozoic rocks and the oLH consists mostly of upper Neoproterozoic–Cambrian strata (Ahmad et al., 2000; Celerier et al., 2009; Hughes et al., 2005; Jiang et al., 2002; McKenzie et al., 2011; Richards et al., 2005; Webb et al., 2011). Sparse lenses of lower Cenozoic deposits unconformably overlie rocks in both iLH and oLH zones. Rocks of the oLH are part of a continuous sedimentary belt that likely once spanned the Himalaya (Myrow et al., 2015; Yu et al., 2015). These strata are best exposed in Tons hanging wall synforms of northwest India (Figure 1). Preservation of the Krol–Tal belt of the upper oLH is particularly significant as it contains black shale beds enriched in radiogenic $^{187}Os$, the erosion of which are proposed to be the initial contributors to the Neogene increase in $^{187}Os/^{188}Os_{(sw)}$ (Myrow et al., 2015). Despite its importance, the timing of onset of oLH exhumation due to displacement along the Tons Thrust has, until now, remained poorly constrained.

## ZIRCON THERMOCHRONOMETRY

In order to constrain the timing LH exhumation, we systemically collected new low-temperature zircon (U-Th)/He (ZHe) thermochronometric data from detrital and bedrock samples collected from the Miocene foreland basin and strike-perpendicular transects across major tectonostratigraphic zones of the frontal thrust belt (Figure 2). The ZHe system is characterized by He closure temperature of ~180°C, corresponding to exhumation from depths of ~7 to ~9 km and a partial retention zone (PRZ) between ~140-200°C (e.g., Reiners et al., 2004; Reiners and Brandon, 2006; Wolfe and Stockli,

2010). In addition, coupling of bedrock and detrital ZHe data provides direct, quantitative constraints on Himalayan cooling and exhumation during progressive thrusting and its erosional products shed into the foreland basin. All ZHe data were collected at the UTChron facilities at the University of Texas at Austin following analytical procedures of Wolfe and Stockli (2010). See supplement XXX for data and procedures.

Four bedrock samples from the Krol–Tal belt of the upper oLH yield an average cooling age of 16.1 ± 1.7 (n=18), and one sample from the lower Cenozoic Subathu Formation, deposited unconformably on these rocks, yield an age of 15.7 ± 4.1 (n=3). Samples were analyzed from the conspicuous 635 Ma Marinoan-aged Blaini diamictite collected below the cap-carbonate that marks the base of the ~1.5 km thick Krol Group (Jiang et al., 2002), and sandstones from the biostratigraphically constrained Cambrian Tal Group that overlies the Krol Group (Hughes et al., 2005). These samples were collected on both the northern and southern limbs of the Mussoorie syncline (Figure 10). The Subathu sample was deposited onto the Tal before LH deformation and caps the entire 2–3 km thick Blaini–Krol–Tal package. The original Neoproterozoic–Cambrian succession is largely preserved within the Mussoorie structural synform (Hughes et al., 2005; Jiang et al., 2002; Valdiya, 1980) and the uniform ZHe cooling ages throughout the entire package, including lower Cenozoic strata, indicates that these rocks were sufficiently buried below the ZHe closure window and were rapidly exhumed at ~16 Ma (Figure 14, 18, 19, and 22). Two samples from MCT klippe structurally above the oLH

yield an average age of 23.0 ± 2.1 (n=7), suggesting that the MCT was emplaced above the oLH before LH deformation. Four samples from the lower oLH, collected north of the MCT klippen, yield an average age of 10.7 ± 2.4 (n=11), and four samples from the iLH yield an average age of 10.5 ± 3.7 (n=18). Lower oLH cooling ages gradually decrease to ~10 Ma northward approaching the trace of the Tons Thrust (Figure 22), suggesting an approximate time of folding of the thrust at depth due to iLH duplexing, producing the present-day oLH synform. A single lower oLH Shimla Group sample collected just north of the MBT and south of the MCT klippen produced an age of 7.2 ± 1.8 (n=6) (Figure 10), indicating younger cooling due to exhumation along the MBT after deactivation of the Tons Thrust.

Detrital ZHe analysis on 22 zircon grains from a foreland basin sample (SW01) of the 13-17 Ma upper Dharamsala Formation (White et al., 2002) exhibit a predominant relative probability age peak of ~17 Ma, and a smaller age group of 20–30 Ma (Figure 22). The youngest three detrital grains result in an average ZHe age of 16.2 ± 0.5 (n=3) and marks a maximum depositional age for sample SW01, which further constrains the depositional age to ~16–13 Ma and a depositional lag time of ~0–3 Myr. The abundance of 16–17 Ma grains and very short depositional lag time clearly demonstrates that Himalayan source rocks, including those from the oLH Krol–Tal belt, were rapidly exhumed, but also eroded and shed into the foreland basin and beyond at this time.

## HIMALAYAN UNROOFING AND WEATHERING PROXIES

Data presented here support a tectonic model in which the oLH was emplaced during Miocene displacement on the Tons Thrust via in-sequence thrust propagation (Webb et al., 2011) (Figure 21). Southward advance of thrusting from the MCT into the LH zone at ~16 Ma is further evidenced by thermochronometric data in western India (Deeken et al., 2011), Nepal (Bernet et al., 2006), and Bhutan (Long et al., 2012), which in conjunction with our new data, indicates an orogen-wide pulse of LH exhumation at this time. Strata enriched in $^{187}Os$ of the Tons Thrust hanging wall likely spanned the length of the orogen, but were removed across Nepal due to erosion since initial unroofing at 16 Ma, with the strata preserved in the oLH a regional remnant of this once-extensive belt of material (Myrow et al., 2015; Yu et al., 2015).

Collectively, these data provide compelling support for the hypothesis that Himalayan tectonic unroofing and bedrock weathering drove Neogene seawater $^{87}Sr/^{86}Sr$ and $^{187}Os/^{188}Os$ variation. The unroofing of Neoproterozoic–Cambrian oLH radiogenic Os black shales at ~16 Ma initiated the increase in $^{187}Os/^{188}Os_{(sw)}$ while decreased weathering of labile $^{87}Sr$-enriched MCT hanging wall rock was responsible for the coeval decrease in slope in $^{87}Sr/^{86}Sr_{(sw)}$ (Figure 21, 22). This demonstrates a rapid seawater response to tectonically driven chemical input. Our data indicate LH duplexing at ~11 Ma shifted the zone of focused exhumation north of the Tons Thrust. Once unroofed, iLH strata added to the supply of radiogenic $^{187}Os$, which facilitated the ongoing increase in $^{187}Os/^{188}Os_{(sw)}$ after the majority of oLH strata eroded away across the orogen. The

relationship between weathering of distinct Himalayan source rock and observed global shifts in the $^{87}Sr/^{86}Sr$ and $^{187}Os/^{188}Os$ seawater records is critical because these records have been utilized to various degrees to track shifts in global silicate and black shale weathering and to reconstruct long-term carbon cycling (Torres et al., 2014). Cenozoic $^{87}Sr/^{86}Sr_{(sw)}$ and $^{187}Os/^{188}Os_{(sw)}$ appear to have been strongly influenced by variations in source rock exhumation in the Himalaya thrust belt. Thus, observed seawater records are explained by changes in the composition of weathering substrates, and these source-driven changes are independent of changes in the extent of global weathering. Given the propensity for regional bedrock influences, seawater Sr and Os isotopic records should not be considered reliable proxies for tracking deep-time silicate or oxidative sulfide weathering and cannot be used to develop a mechanistic understanding of the factors controlling atmospheric $CO_2$ levels.

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# Appendix

Table 1 Bedrock (U-Th)/He summary

| Sample | Zone | Transect | Formation | Latitude | Longitude | Elevation (m) | Distance from Front (km) | Average | 2SD | 2SE |
|---|---|---|---|---|---|---|---|---|---|---|
| 15UK19 | oLH | Lansdowne | Shimla | 29°54'51.90"N | 78°42'27.20"E | 706 | 29.12 | 19.26 | 1.35 | 0.45 |
| 15UK22 | oLH | Lansdowne | Tal | 29°54'26.97"N | 78°41'45.67"E | 984 | 28.63 | 16.00 | 1.13 | 0.56 |
| 15UK29 | oLH | Lansdowne | Tal | 29°49'6.28"N | 78°37'0.88"E | 752 | 17.14 | 17.51 | 8.18 | 2.73 |
| 15HP67 | oLH | Mussoorie/Yamuna | Nagthat | 30°31'9.00"N | 77°57'35.88"E | 858 | 38.60 | 16.46 | 3.00 | 0.75 |
| 15HP68 | oLH | Mussoorie/Yamuna | Shimla | 30°32'44.07"N | 77°59'6.54"E | 857 | 42.07 | 15.73 | 2.23 | 0.56 |
| 15HP75 | oLH | Mussoorie/Yamuna | Shimla | 30°34'2.33"N | 78° 0'19.51"E | 835 | 46.04 | 15.41 | 0.08 | 0.02 |
| MGB01 | oLH | Mussoorie/Yamuna | Blaini | 30°19'32.76"N | 78° 9'4.26"E | 968 | 29.48 | - | - | - |
| MGM01 | oLH | Mussoorie/Yamuna | - | 30°20'39.84"N | 78° 7'42.06"E | 718 | 29.98 | - | - | - |
| MGM02 | oLH | Mussoorie/Yamuna | - | 30°19'32.76"N | 78° 9'4.26"E | 968 | 29.93 | - | - | - |
| MGP01 | oLH | Mussoorie/Yamuna | Subathu | 30°22'0.00"N | 78°12'56.64"E | 1859 | 38.30 | 16.90 | 4.08 | 1.36 |
| MGT01 | oLH | Mussoorie/Yamuna | Tal | 30°20'57.90"N | 78°10'51.30"E | 1583 | 34.60 | 15.87 | 3.08 | 1.03 |
| MGT02 | oLH | Mussoorie/Yamuna | Tal | 30°22'7.20"N | 30°22'7.20"N | 1851 | 37.90 | 16.30 | 1.81 | 0.30 |
| MSB01 | oLH | Mussoorie/Yamuna | Blaini | 30°24'52.50"N | 78°16'17.40"E | 2429 | 16.25 | 16.25 | 0.42 | 0.11 |
| MSB02 | oLH | Mussoorie/Yamuna | Blaini | 30°30'29.94"N | 77°59'58.92"E | 1090 | 39.80 | 15.94 | 1.70 | 0.34 |
| MSJ01 | oLH | Mussoorie/Yamuna | Shimla | 30°24'57.66"N | 78° 4'39.60"E | 1122 | 33.23 | 7.18 | 0.90 | 0.15 |
| MST01 | oLH | Mussoorie/Yamuna | Tal? | 30°27'11.52"N | 78° 6'42.78"E | 2053 | 40.20 | - | - | - |
| DGH01 | oLH | Rampur | - | 31°12'31.86"N | 76°58'38.28"E | 1097 | 45.43 | - | - | - |
| STJ03 | oLH | Rampur | Shimla | 31° 6'21.06"N | 77°11'36.96"E | 2176 | 53.70 | 11.82 | 0.23 | 0.11 |
| STJ04 | oLH | Rampur | Shimla | 31° 5'12.18"N | 77°17'46.20"E | 2517 | 58.10 | 10.68 | 3.64 | 0.91 |
| STJ05 | oLH | Rampur | Shimla? | 30°55'52.86"N | 77° 7'46.56"E | 2515 | 35.84 | - | - | - |
| KD1 | oLH | Tons | Tal | - | - | - | - | - | - | - |
| TV-BLD | oLH | Tons | Blaini | 30°35'43.38"N | 77°44'44.40"E | 612 | 37.40 | 10.15 | 2.89 | 1.45 |
| TV-J | oLH | Tons | Nagthat | 30°34'34.38"N | 77°45'51.06"E | 616 | 37.00 | 11.53 | 1.69 | 0.56 |
| YU911246 | oLH | Tons | Shimla | 30°42'31.26"N | 77°40'59.88"E | - | 44.45 | 18.37 | 3.59 | 0.90 |
| 15UK16 | iLH | Lansdowne | iLH | 29°57'18.42"N | 78°45'39.06"E | 680 | 40.15 | 15.67 | 3.72 | 0.93 |
| 15HP70 | iLH | Mussoorie/Yamuna | Damtha | 30°38'57.57"N | 78° 1'25.25"E | 967 | 53.90 | 11.31 | 2.57 | 0.86 |
| 15HP71 | iLH | Mussoorie/Yamuna | Granitic Gneiss/Berinag Thrust HW | 30°48'0.28"N | 78°10'49.20"E | 1213 | 75.44 | 16.57 | 2.86 | 0.95 |
| 15HP72 | iLH | Mussoorie/Yamuna | Berinag | 30°47'51.70"N | 78° 9'54.57"E | 1232 | 74.78 | 14.56 | 4.35 | 1.45 |
| 15HP06 | iLH | Rampur | Berinag | 31°14'47.24"N | 77°12'33.37"E | 745 | 69.49 | 12.75 | 5.06 | 1.27 |
| 15HP09 | iLH | Rampur | Baragaon Gneiss | 31°20'50.76"N | 77°24'35.52"E | 797 | 86.80 | 9.35 | 2.68 | 0.67 |
| 15HP14 | iLH | Rampur | Baragaon Gneiss | 31°30'7.74"N | 77°42'55.54"E | 1251 | 120.00 | 12.54 | 3.73 | 1.86 |
| 15HP17 | iLH | Rampur | Wangtu Gneiss | 31°33'51.89"N | 77°49'36.78"E | 1596 | 132.61 | 7.60 | 4.68 | 1.17 |
| 15HP19 | iLH | Rampur | Wangtu Gneiss | 31°30'54.98"N | 78° 5'11.22"E | 1672 | 141.51 | 2.38 | 0.86 | 0.29 |
| 15HP25 | iLH | Rampur | Damtha | 31°23'16.27"N | 77°34'34.83"E | 914 | 101.64 | 6.71 | 2.84 | 0.71 |
| TV-17-RT-DB22 | iLH | Tons | Rautgara ? | 30°54'35.94"N | 77°49'56.94"E | 825.0 | 94.20 | 10.68 | 0.47 | 0.12 |
| TV-17-RTG-1 | iLH | Tons | Rautgara ? | 30°50'0.18"N | 77°46'40.14"E | 837.0 | 64.00 | 9.88 | 4.87 | 0.81 |
| TVP-BNG-18 | iLH | Tons | Berinag | 31° 7'34.50"N | 77°49'48.06"E | 1178.0 | 73.50 | 9.98 | 3.68 | 0.74 |
| YU911176B | iLH | Tons | - | 30°57'2.04"N | 77°54'13.14"E | - | 79.84 | 11.80 | 3.71 | 1.24 |
| YU911191 | iLH | Tons | - | 31° 6'45.30"N | 78°14'20.22"E | - | 113.38 | 8.65 | 0.95 | 0.32 |
| YU911201 | iLH | Tons | - | 31° 1'7.98"N | 78° 2'38.64"E | - | 94.07 | 8.26 | 1.23 | 0.31 |
| ALM-2 | MCT | Almora | Almora | 29°37'12.42"N | 79°43'12.42"E | | 42.81 | 12.66 | 1.21 | 0.30 |
| CRP04 | MCT | Chamba | Haimanta | 32°42'58.02"N | 76°40'25.80"E | 2700 | 127.35 | 14.70 | 0.60 | 0.20 |
| 15UK12 | MCT | Lansdowne | MCT | 30° 3'32.03"N | 78°21'11.67"E | 850 | 28.26 | 19.71 | 5.73 | 1.91 |
| 15UK23 | MCT | Lansdowne | - | 29°55'5.71"N | 78°41'5.53"E | 1114 | 28.35 | 20.71 | 0.93 | 0.47 |
| 15UK24 | MCT | Lansdowne | - | 29°53'51.98"N | 78°40'21.41"E | 1440 | 28.10 | 16.94 | 3.70 | 0.93 |
| 15UK25 | MCT | Lansdowne | Gneiss MCT | 29°51'26.80"N | 78°40'43.60"E | 1610 | 26.93 | 21.80 | 3.90 | 1.30 |
| 15UK26 | MCT | Lansdowne | - | 29°50'7.50"N | 78°41'44.30"E | 1495 | 27.15 | 16.79 | 1.34 | 1.34 |
| 15UK02 | MCT | Mussoorie/Yamuna | MCT WTF | 30°22'3.12"N | 78°12'3.42"E | 1842 | 37.34 | - | - | - |
| ND01 | MCT | Nanital | - | - | - | - | - | 20.57 | 4.17 | 1.04 |
| 15HP01 | MCT | Rampur | Haimanta | 31° 1'16.64"N | 77° 6'6.00"E | 1691 | 40.38 | 20.77 | 0.12 | 0.04 |
| 15HP20B | MCT | Rampur | MCT | 31°29'54.43"N | 78°10'50.74"E | 1840 | 148.31 | 6.29 | 4.85 | 1.21 |
| BRA01 | MCT | Rampur | MCT | 31°41'55.20"N | 77° 9'44.64"E | 919 | 100.02 | 5.12 | 2.40 | 0.60 |
| BRA02 | MCT | Rampur | MCT | 31°39'51.36"N | 77° 3'37.62"E | 935 | 90.00 | 8.28 | 1.90 | 0.63 |
| BRH01 | MCT | Rampur | MCT | 31°41'36.96"N | 77° 8'10.74"E | - | 88.94 | 7.71 | 3.54 | 1.18 |
| BRI01 | MCT | Rampur | Granite | 31°42'30.72"N | 76°59'10.68"E | - | 88.19 | 5.84 | 0.85 | 0.28 |
| STJ01 | MCT | Rampur | Haimanta | 31° 6'11.94"N | 77° 7'5.28"E | 1025 | 48.70 | 23.70 | 5.20 | 1.73 |
| STJ02 | MCT | Rampur | Haimanta | 31° 5'43.74"N | 77° 8'17.70"E | 1975 | 49.90 | 22.03 | 1.10 | 0.37 |

Table 2 Bedrock (U-Th)/He single aliquot summary

| Sample | Zone | Transect | Formation | Average | 2SD | 2SE | Aliquot | mineral | Age, Ma | err., Ma | U (ppm) | Th (ppm) | 147Sm (ppm) | [U]e | Th/U | He (nmol/g) | mass (ug) | Ft | ESR | Fractured grain |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MGT02 | oLH | Mussoorie/ Yamuna | Tal | 16.30 | 1.81 | 0.30 | zMGT02-1 | zircon | 17.1 | 1.37 | 197.0 | 50.2 | 0.3 | 208.5 | 0.25 | 13.6 | 2.73 | 0.71 | 38.95 | x |
| | | | | | | | zMGT02-2 | zircon | 17.5 | 1.40 | 58.1 | 31.1 | 0.3 | 65.2 | 0.54 | 5.1 | 13.00 | 0.82 | 68.01 | |
| | | | | | | | zMGT02-3 | zircon | 16.2 | 1.30 | 60.0 | 81.0 | 1.4 | 78.7 | 1.35 | 5.1 | 3.90 | 0.74 | 45.66 | |
| | | | | | | | zMGT02-4 | zircon | 15.2 | 1.22 | 151.2 | 51.4 | 0.7 | 163.0 | 0.34 | 9.5 | 2.68 | 0.71 | 39.08 | |
| | | | | | | | zMGT02-5 | zircon | 16.4 | 1.31 | 101.7 | 76.3 | 0.9 | 119.3 | 0.75 | 8.6 | 11.52 | 0.82 | 65.77 | |
| | | | | | | | zMGT02-6 | zircon | 15.4 | 1.23 | 141.5 | 112.1 | 3.2 | 167.3 | 0.79 | 9.9 | 2.62 | 0.71 | 40.68 | |
| MSB01 | oLH | Mussoorie/ Yamuna | Blaini | 16.25 | 0.42 | 0.11 | zMSB01-4 | zircon | 16.5 | 1.32 | 129.8 | 76.9 | 1.1 | 147.5 | 0.59 | 10.2 | 6.68 | 0.77 | 51.70 | x |
| | | | | | | | zMSB01-5 | zircon | 16.0 | 1.28 | 137.1 | 56.1 | 0.6 | 150.0 | 0.41 | 9.8 | 4.67 | 0.76 | 47.54 | |
| | | | | | | | zMSB01-6 | zircon | 16.4 | 1.31 | 132.6 | 105.3 | 0.4 | 156.9 | 0.79 | 10.1 | 3.27 | 0.73 | 42.67 | |
| | | | | | | | zMSB01-7 | zircon | 16.1 | 1.29 | 207.1 | 133.7 | 1.9 | 237.8 | 0.65 | 15.8 | 5.39 | 0.76 | 49.23 | |
| MSB02 | oLH | Mussoorie/ Yamuna | Blaini | 15.94 | 1.70 | 0.34 | zMSB02-1 | zircon | 15.7 | 1.26 | 197.7 | 235.8 | 3.6 | 252.0 | 1.19 | 17.0 | 8.34 | 0.79 | 58.37 | x |
| | | | | | | | zMSB02-2* | zircon | 20.2 | 1.61 | 152.1 | 80.3 | 1.6 | 170.6 | 0.53 | 13.9 | 4.09 | 0.75 | 45.82 | |
| | | | | | | | zMSB02-3 | zircon | 17.4 | 1.39 | 110.2 | 128.4 | 2.5 | 139.8 | 1.16 | 10.0 | 4.81 | 0.76 | 48.98 | |
| | | | | | | | zMSB02-4 | zircon | 15.3 | 1.22 | 211.0 | 122.3 | 3.5 | 239.2 | 0.58 | 15.2 | 5.68 | 0.77 | 51.59 | |
| | | | | | | | zMSB02-5* | zircon | 19.0 | 1.52 | 111.4 | 61.5 | 1.9 | 125.6 | 0.55 | 9.1 | 2.61 | 0.71 | 39.40 | x |
| | | | | | | | zMSB02-6 | zircon | 16.0 | 1.28 | 110.8 | 58.0 | 1.0 | 124.2 | 0.52 | 8.7 | 10.12 | 0.81 | 62.52 | |
| | | | | | | | zMSB02-7 | zircon | 15.4 | 1.23 | 128.2 | 48.6 | 0.9 | 139.4 | 0.38 | 9.0 | 5.58 | 0.78 | 52.25 | |
| MSJ01 | oLH | Mussoorie/ Yamuna | Shimla | 7.18 | 0.90 | 0.15 | zMSJ01-4 | zircon | 6.7 | 0.53 | 203.6 | 164.4 | 1.0 | 241.4 | 0.81 | 6.3 | 3.31 | 0.73 | 43.55 | x |
| | | | | | | | zMSJ01-5 | zircon | 8.9 | 0.71 | 156.3 | 76.7 | 0.7 | 173.9 | 0.49 | 5.8 | 2.04 | 0.69 | 36.94 | |
| | | | | | | | zMSJ01-6 | zircon | 7.0 | 0.56 | 193.9 | 197.3 | 1.6 | 239.3 | 1.02 | 6.4 | 2.88 | 0.71 | 40.86 | |
| | | | | | | | zMSJ01-7 | zircon | 6.4 | 0.51 | 58.9 | 68.9 | 0.7 | 74.7 | 1.17 | 1.8 | 2.70 | 0.71 | 40.68 | |
| | | | | | | | zMSJ01-2 | zircon | 7.3 | 0.58 | 168.9 | 137.2 | 1.5 | 200.5 | 0.81 | 5.6 | 2.55 | 0.71 | 40.15 | |
| | | | | | | | zMSJ01-3 | zircon | 6.9 | 0.55 | 161.7 | 272.4 | 2.9 | 224.5 | 1.68 | 5.9 | 2.49 | 0.69 | 38.76 | |
| MST01 | oLH | Mussoorie/ Yamuna | Tal? | - | - | - | zMST01-1 | zircon | 38.2 | 3.06 | 148.5 | 117.1 | 1.5 | 175.5 | 0.79 | 27.2 | 4.43 | 0.75 | 47.06 | x |
| | | | | | | | zMST01-2 | zircon | 53.3 | 4.26 | 35.7 | 61.6 | 0.9 | 49.9 | 1.72 | 11.2 | 7.88 | 0.78 | 54.62 | |
| | | | | | | | zMST01-3 | zircon | 65.7 | 5.26 | 151.2 | 135.5 | 1.8 | 182.4 | 0.90 | 49.5 | 5.31 | 0.76 | 49.61 | |
| | | | | | | | zMST01-4 | zircon | 19.7 | 1.58 | 93.8 | 393.9 | 4.6 | 184.5 | 4.20 | 14.9 | 4.91 | 0.75 | 49.50 | |
| | | | | | | | zMST01-5 | zircon | 15.9 | 1.27 | 76.1 | 134.3 | 1.7 | 107.0 | 1.77 | 7.1 | 6.09 | 0.77 | 53.62 | |
| | | | | | | | zMST01-6 | zircon | 52.4 | 4.19 | 85.9 | 86.3 | 2.1 | 105.8 | 1.00 | 22.2 | 3.93 | 0.74 | 45.28 | x |
| | | | | | | | zMST01-7 | zircon | 15.0 | 1.20 | 38.2 | 110.2 | 1.4 | 63.6 | 2.88 | 3.9 | 5.58 | 0.74 | 47.94 | |
| | | | | | | | zMST01-9 | zircon | 23.5 | 1.88 | 52.3 | 133.7 | 1.3 | 83.1 | 2.56 | 8.1 | 5.26 | 0.76 | 50.76 | |
| | | | | | | | zMST01-10 | zircon | 12.1 | 0.97 | 84.7 | 229.9 | 4.0 | 137.7 | 2.71 | 6.9 | 5.20 | 0.76 | 50.50 | |
| MGB01 | oLH | Mussoorie/ Yamuna | Blaini | - | - | - | zMGB01-1 | zircon | 10.8 | 0.87 | 122.0 | 166.7 | 3.6 | 160.4 | 1.37 | 7.3 | 5.90 | 0.77 | 52.32 | x |
| | | | | | | | zMGB01-2 | zircon | 0.5 | 0.04 | 110.8 | 53.2 | 0.7 | 123.0 | 0.48 | 0.2 | 2.95 | 0.72 | 41.23 | |
| | | | | | | | zMGB01-3 | zircon | 40.6 | 3.25 | 119.3 | 77.5 | 0.7 | 137.2 | 0.65 | 22.7 | 5.05 | 0.75 | 47.84 | |
| | | | | | | | zMGB01-4 | zircon | 14.4 | 1.15 | 121.7 | 47.0 | 2.2 | 132.5 | 0.39 | 7.8 | 4.78 | 0.76 | 47.53 | |
| | | | | | | | zMGB01-5 | zircon | 5.4 | 0.43 | 424.0 | 132.9 | 12.5 | 454.7 | 0.31 | 9.6 | 2.84 | 0.72 | 41.27 | |
| | | | | | | | zMGB01-6 | zircon | 30.9 | 2.47 | 49.8 | 31.5 | 1.6 | 57.1 | 0.63 | 7.6 | 8.45 | 0.80 | 58.58 | |

Table 2 Bedrock (U-Th)/He single aliquot summary (continued)

| Sample | Zone | Transect | Formation | Average | 2SD | 2SE | Aliquot | mineral | Age, Ma | err., Ma | U (ppm) | Th (ppm) | 147Sm (ppm) | [U]e | Th/U | He (nmol/g) | mass (ug) | Ft | ESR | Fractured grain |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MGP01 | oLH | Mussoorie/ Yamuna | Subathu | 16.90 | 4.08 | 1.36 | zMGP01-1* | zircon | 63.8 | 5.10 | 36.2 | 29.2 | 0.6 | 42.9 | 0.81 | 12.3 | 14.69 | 0.82 | 69.37 | x |
| | | | | | | | zMGP01-2 | zircon | 16.6 | 1.33 | 82.0 | 49.8 | 0.8 | 93.4 | 0.61 | 6.1 | 3.24 | 0.73 | 42.97 | |
| | | | | | | | zMGP01-3 | zircon | 17.2 | 1.38 | 42.5 | 37.0 | 0.6 | 51.0 | 0.87 | 3.7 | 5.82 | 0.77 | 52.90 | |
| | | | | | | | zMGP01-4 | zircon | 13.4 | 1.07 | 120.6 | 51.1 | 1.2 | 132.4 | 0.42 | 7.0 | 3.21 | 0.73 | 43.29 | |
| MGM01 | oLH | Mussoorie/ Yamuna | - | - | - | - | zMGM01-1 | zircon | 34.4 | 2.75 | 131.4 | 107.2 | 3.3 | 156.1 | 0.82 | 23.4 | 10.70 | 0.81 | 62.10 | x |
| | | | | | | | zMGM01-2 | zircon | 11.0 | 0.88 | 283.0 | 58.6 | 2.2 | 296.5 | 0.21 | 15.0 | 25.38 | 0.85 | 80.44 | |
| | | | | | | | zMGM01-3 | zircon | 8.0 | 0.64 | 315.7 | 110.3 | 2.1 | 341.1 | 0.35 | 11.9 | 9.84 | 0.81 | 61.05 | |
| | | | | | | | zMGM01-4 | zircon | 83.3 | 6.66 | 177.7 | 56.2 | 0.8 | 190.7 | 0.32 | 69.6 | 10.87 | 0.81 | 61.48 | |
| | | | | | | | zMGM01-5 | zircon | 73.4 | 5.87 | 146.7 | 67.0 | 1.1 | 162.1 | 0.46 | 53.4 | 13.90 | 0.83 | 69.41 | |
| | | | | | | | zMGM01-6 | zircon | 39.4 | 3.15 | 155.2 | 60.2 | 1.0 | 169.0 | 0.39 | 29.4 | 12.35 | 0.82 | 64.45 | |
| | | | | | | | zMGM01-7 | zircon | 46.3 | 3.70 | 199.0 | 68.6 | 0.8 | 214.8 | 0.34 | 42.7 | 8.87 | 0.79 | 57.10 | |
| | | | | | | | zMGM01-8 | zircon | 11.1 | 0.89 | 20.1 | 15.1 | 0.2 | 23.5 | 0.75 | 1.2 | 42.25 | 0.87 | 97.82 | |
| | | | | | | | zMGM01-9 | zircon | 111.7 | 8.94 | 39.5 | 17.9 | 0.3 | 43.7 | 0.45 | 22.8 | 30.48 | 0.86 | 85.43 | x |
| MGM02 | oLH | Mussoorie/ Yamuna | - | - | - | - | zMGM02-1 | zircon | 23.2 | 1.85 | 165.4 | 45.3 | 0.7 | 175.8 | 0.27 | 16.5 | 3.90 | 0.75 | 46.08 | x |
| | | | | | | | zMGM02-2 | zircon | 26.3 | 2.11 | 145.7 | 57.7 | 1.2 | 159.0 | 0.40 | 16.6 | 3.63 | 0.73 | 43.55 | |
| | | | | | | | zMGM02-3 | zircon | 17.2 | 1.37 | 377.0 | 132.6 | 1.9 | 407.5 | 0.35 | 30.5 | 9.10 | 0.81 | 61.43 | |
| | | | | | | | zMGM02-4 | zircon | 19.8 | 1.59 | 106.6 | 53.7 | 1.9 | 119.0 | 0.50 | 9.8 | 5.78 | 0.77 | 51.21 | |
| MGT01 | oLH | Mussoorie/ Yamuna | Tal | 15.87 | 3.08 | 1.03 | zMGT01-2 | zircon | 16.6 | 1.33 | 204.3 | 75.3 | 4.7 | 221.7 | 0.37 | 15.0 | 4.65 | 0.76 | 47.80 | x |
| | | | | | | | zMGT01-3* | zircon | 29.3 | 2.35 | 216.9 | 126.8 | 4.0 | 246.1 | 0.58 | 28.4 | 3.47 | 0.73 | 42.84 | |
| | | | | | | | zMGT01-4 | zircon | 14.1 | 1.13 | 178.3 | 67.8 | 1.5 | 193.9 | 0.38 | 11.2 | 4.97 | 0.76 | 48.14 | |
| | | | | | | | zMGT01-5 | zircon | 16.9 | 1.35 | 40.2 | 42.6 | 0.8 | 50.0 | 1.06 | 3.7 | 9.08 | 0.80 | 60.38 | |
| | | | | | | | zMGT01-6* | zircon | 41.5 | 3.32 | 73.4 | 35.2 | 1.1 | 81.5 | 0.48 | 13.2 | 3.14 | 0.72 | 41.31 | |
| TV-BLD | oLH | Tons | Blaini | 10.15 | 2.89 | 1.45 | zTV-BLD-1 | zircon | 9.0 | 0.72 | 316.9 | 134.0 | 0.6 | 347.8 | 0.42 | 12.3 | 2.87 | 0.73 | 41.87 | x |
| | | | | | | | zTV-BLD-2 | zircon | 9.7 | 0.77 | 150.5 | 26.1 | 0.3 | 156.5 | 0.17 | 6.0 | 3.50 | 0.74 | 43.04 | |
| | | | | | | | zTV-BLD-3* | zircon | 20.8 | 1.67 | 101.0 | 114.3 | 1.9 | 127.4 | 1.13 | 10.7 | 4.61 | 0.74 | 45.78 | |
| | | | | | | | zTV-BLD-4 | zircon | 11.8 | 0.94 | 286.3 | 224.3 | 1.5 | 338.0 | 0.78 | 15.3 | 2.65 | 0.71 | 40.42 | |
| TV-J | oLH | Tons | Nagthat | 11.53 | 1.69 | 0.56 | zTV-J-1 | zircon | 11.5 | 0.92 | 186.7 | 141.0 | 4.5 | 219.2 | 0.76 | 9.8 | 2.83 | 0.72 | 41.82 | x |
| | | | | | | | zTV-J-2* | zircon | 18.7 | 1.50 | 121.1 | 162.2 | 4.1 | 158.4 | 1.34 | 11.7 | 3.61 | 0.72 | 43.13 | |
| | | | | | | | zTV-J-3 | zircon | 12.4 | 0.99 | 139.2 | 140.2 | 2.3 | 171.5 | 1.01 | 8.4 | 3.60 | 0.73 | 43.67 | |
| | | | | | | | zTV-J-4 | zircon | 10.7 | 0.86 | 226.1 | 112.5 | 2.8 | 252.0 | 0.50 | 9.9 | 1.83 | 0.68 | 34.99 | |

Table 2 Bedrock (U-Th)/He single aliquot summary (continued)

| Sample | Zone | Transect | Formation | Average | 2SD | 2SE | Aliquot | mineral | Age, Ma | err., Ma | U (ppm) | Th (ppm) | 147Sm (ppm) | [U]e | Th/U | He (nmol/g) | mass (ug) | Ft | ESR | Fractured grain |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STJ03 | oLH | Rampur | Shimla | 11.82 | 0.23 | 0.11 | zSTJ03-1 | zircon | 11.9 | 0.95 | 250.9 | 140.9 | 3.4 | 283.4 | 0.56 | 13.8 | 5.04 | 0.75 | 47.92 | x |
| | | | | | | | zSTJ03-2 | zircon | 11.7 | 0.94 | 102.7 | 146.3 | 2.3 | 136.4 | 1.42 | 6.0 | 2.24 | 0.69 | 38.27 | |
| | | | | | | | zSTJ03-3* | zircon | 16.8 | 1.34 | 45.9 | 76.0 | 1.0 | 63.4 | 1.65 | 4.1 | 2.80 | 0.70 | 39.81 | |
| | | | | | | | zSTJ03-4* | zircon | 50.2 | 4.02 | 111.7 | 135.3 | 1.4 | 142.8 | 1.21 | 26.7 | 2.04 | 0.68 | 36.90 | |
| STJ04 | oLH | Rampur | Shimla | 10.68 | 3.64 | 0.91 | zSTJ04-1 | zircon | 9.8 | 0.78 | 238.0 | 93.0 | 1.8 | 259.4 | 0.39 | 10.5 | 5.43 | 0.77 | 50.55 | x |
| | | | | | | | zSTJ04-2 | zircon | 9.2 | 0.74 | 469.3 | 48.8 | 1.6 | 480.6 | 0.10 | 17.7 | 3.87 | 0.75 | 44.46 | |
| | | | | | | | zSTJ04-3 | zircon | 10.5 | 0.84 | 298.6 | 118.6 | 1.3 | 326.0 | 0.40 | 13.9 | 4.55 | 0.76 | 47.54 | |
| | | | | | | | zSTJ04-4 | zircon | 13.3 | 1.06 | 111.5 | 70.5 | 1.0 | 127.7 | 0.63 | 6.4 | 2.31 | 0.70 | 38.02 | |
| STJ05 | oLH | Rampur | Shimla? | - | - | - | zSTJ05-1 | zircon | 13.3 | 1.07 | 381.3 | 54.9 | 2.1 | 393.9 | 0.14 | 21.6 | 5.53 | 0.76 | 48.72 | x |
| | | | | | | | zSTJ05-2 | zircon | 20.0 | 1.60 | 190.2 | 71.8 | 1.9 | 206.7 | 0.38 | 16.4 | 3.26 | 0.73 | 43.14 | |
| | | | | | | | zSTJ05-3 | zircon | 28.7 | 2.30 | 69.8 | 49.5 | 0.8 | 81.2 | 0.71 | 8.9 | 2.38 | 0.70 | 38.65 | |
| | | | | | | | zSTJ05-4 | zircon | 15.2 | 1.22 | 202.8 | 122.4 | 2.7 | 231.0 | 0.60 | 13.4 | 2.43 | 0.70 | 39.08 | |
| DGH01 | oLH | Rampur | - | - | - | - | zDGH01-1 | zircon | 45.5 | 3.64 | 70.0 | 65.8 | 1.0 | 85.2 | 0.94 | 16.4 | 6.85 | 0.78 | 54.08 | x |
| | | | | | | | zDGH01-2 | zircon | 11.5 | 0.92 | 432.6 | 231.1 | 1.1 | 485.8 | 0.53 | 23.1 | 5.56 | 0.76 | 49.66 | |
| | | | | | | | zDGH01-3 | zircon | 26.8 | 2.15 | 150.3 | 192.8 | 1.7 | 194.7 | 1.28 | 22.2 | 6.84 | 0.78 | 55.38 | |
| | | | | | | | zDGH01-4 | zircon | 24.5 | 1.96 | 143.0 | 101.9 | 0.9 | 166.5 | 0.71 | 14.8 | 1.70 | 0.67 | 34.90 | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | zKD1-2 | zircon | 19.5 | 1.56 | 64.9 | 122.8 | 3.2 | 93.2 | 1.89 | 8.2 | 16.46 | 0.83 | 74.21 | |
| | | | | | | | zKD1-3 | zircon | 49.6 | 3.97 | 142.7 | 104.7 | 5.9 | 166.9 | 0.73 | 34.9 | 6.67 | 0.78 | 53.80 | |
| | | | | | | | zKD1-4 | zircon | 17.2 | 1.37 | 390.7 | 202.7 | 3.8 | 437.4 | 0.52 | 31.4 | 5.64 | 0.77 | 51.55 | |
| YU911246 | oLH | Tons | Shimla | 18.37 | 3.59 | 0.90 | zYU911246-1 | zircon | 20.4 | 1.63 | 107.1 | 97.1 | 2.7 | 129.5 | 0.91 | 9.7 | 1.93 | 0.68 | 36.22 | |
| | | | | | | | zYU911246-2 | zircon | 19.3 | 1.54 | 106.3 | 92.2 | 4.5 | 127.6 | 0.87 | 9.3 | 2.60 | 0.70 | 38.45 | |
| | | | | | | | zYU911246-3 | zircon | 16.4 | 1.31 | 234.4 | 149.7 | 15.7 | 268.9 | 0.64 | 16.9 | 2.64 | 0.71 | 39.60 | |
| | | | | | | | zYU911246-4 | zircon | 17.4 | 1.39 | 129.4 | 70.2 | 3.1 | 145.6 | 0.54 | 9.4 | 2.08 | 0.69 | 36.83 | |
| 15HP67 | oLH | Mussoorie/ Yamuna | Nagthat | 16.46 | 3.00 | 0.75 | z15HP67-1 | zircon | 16.1 | 1.29 | 244.3 | 44.5 | 2.6 | 254.6 | 0.18 | 17.4 | 6.93 | 0.79 | 55.19 | |
| | | | | | | | z15HP67-2 | zircon | 15.8 | 1.26 | 106.7 | 75.4 | 1.1 | 124.0 | 0.71 | 8.5 | 8.82 | 0.80 | 60.18 | |
| | | | | | | | z15HP67-3 | zircon | 15.3 | 1.23 | 399.6 | 106.7 | 1.9 | 424.2 | 0.27 | 27.2 | 5.96 | 0.77 | 51.70 | |
| | | | | | | | z15HP67-4 | zircon | 18.7 | 1.49 | 124.5 | 34.8 | 5.1 | 132.5 | 0.28 | 10.9 | 10.64 | 0.82 | 63.83 | |
| 15HP68 | oLH | Mussoorie/ Yamuna | Shimla | 15.73 | 2.23 | 0.56 | z15HP68-1* | zircon | 21.3 | 1.70 | 120.9 | 72.3 | 2.2 | 137.5 | 0.60 | 11.6 | 3.22 | 0.73 | 43.11 | |
| | | | | | | | z15HP68-2 | zircon | 15.2 | 1.22 | 656.9 | 169.7 | 14.8 | 696.1 | 0.26 | 42.6 | 4.17 | 0.74 | 44.98 | |
| | | | | | | | z15HP68-3 | zircon | 15.0 | 1.20 | 432.4 | 189.4 | 11.7 | 476.0 | 0.44 | 28.7 | 3.84 | 0.75 | 45.83 | |
| | | | | | | | z15HP68-4 | zircon | 17.0 | 1.36 | 34.8 | 14.5 | 0.9 | 38.1 | 0.42 | 2.6 | 3.72 | 0.74 | 44.06 | |
| 15HP75 | oLH | Mussoorie/ Yamuna | Shimla | 15.41 | 0.08 | 0.02 | z15HP75-1* | zircon | -46.9 | -3.75 | 0.8 | 0.2 | 0.0 | 0.8 | 0.19 | 19.3 | 2.45 | 0.71 | 39.31 | |
| | | | | | | | z15HP75-2 | zircon | 15.4 | 1.23 | 267.1 | 214.1 | 19.0 | 316.5 | 0.80 | 18.5 | 2.62 | 0.70 | 38.96 | |
| | | | | | | | z15HP75-3* | zircon | 41.4 | 3.31 | 138.0 | 85.0 | 7.5 | 157.6 | 0.62 | 25.3 | 2.90 | 0.72 | 40.72 | x |
| | | | | | | | z15HP75-4 | zircon | 15.4 | 1.24 | 100.0 | 50.2 | 4.9 | 111.6 | 0.50 | 6.9 | 3.53 | 0.74 | 44.52 | |

Table 2 Bedrock (U-Th)/He single aliquot summary (continued)

| Sample | Zone | Transect | Formation | Average | 2SD | 2SE | Aliquot | mineral | Age, Ma | err., Ma | U (ppm) | Th (ppm) | 147Sm (ppm) | [U]e | Th/U | He (nmol/g) | mass (ug) | Ft | ESR | Fractured grain |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15UK19 | oLH | Lansdowne | Shimla | 19.26 | 1.35 | 0.45 | z15UK19-1 | zircon | 20.8 | 1.66 | 81.3 | 93.2 | 3.1 | 102.7 | 1.15 | 8.8 | 4.75 | 0.76 | 49.50 | |
| | | | | | | | z15UK19-2 | zircon | 18.3 | 1.46 | 231.6 | 105.8 | 2.1 | 255.9 | 0.46 | 18.6 | 3.70 | 0.74 | 43.82 | |
| | | | | | | | z15UK19-3 | zircon | 80.4 | 6.43 | 111.2 | 158.9 | 2.6 | 147.8 | 1.43 | 51.2 | 7.69 | 0.79 | 58.04 | |
| | | | | | | | z15UK19-4 | zircon | 18.7 | 1.50 | 51.0 | 35.9 | 1.1 | 59.3 | 0.70 | 4.5 | 3.95 | 0.75 | 47.04 | |
| 15UK22 | oLH | Lansdowne | Tal | 16.00 | 1.13 | 0.56 | z15UK22-1 | zircon | 16.4 | 1.31 | 66.7 | 117.4 | 7.0 | 93.7 | 1.76 | 6.8 | 10.57 | 0.81 | 64.21 | |
| | | | | | | | z15UK22-2 | zircon | 15.6 | 1.25 | 221.0 | 175.2 | 17.3 | 261.4 | 0.79 | 17.1 | 6.02 | 0.78 | 53.14 | |
| | | | | | | | z15UK22-3 | zircon | 55.8 | 4.46 | 37.4 | 94.4 | 5.0 | 59.2 | 2.52 | 14.0 | 6.23 | 0.77 | 54.50 | |
| | | | | | | | z15UK22-4* | zircon | 26.0 | 2.08 | 163.6 | 147.2 | 7.8 | 197.5 | 0.90 | 20.0 | 2.94 | 0.72 | 41.67 | x |
| 15UK29 | oLH | Lansdowne | Tal | 17.51 | 8.18 | 2.73 | z15UK29-1* | zircon | 53.2 | 4.25 | 141.5 | 53.1 | 3.9 | 153.7 | 0.37 | 36.1 | 11.85 | 0.82 | 64.56 | |
| | | | | | | | z15UK29-2 | zircon | 13.2 | 1.05 | 210.6 | 125.6 | 28.6 | 239.7 | 0.60 | 12.9 | 4.65 | 0.76 | 48.35 | |
| | | | | | | | z15UK29-3 | zircon | 18.0 | 1.44 | 175.0 | 70.2 | 4.4 | 191.2 | 0.40 | 13.1 | 2.22 | 0.70 | 38.70 | |
| | | | | | | | z15UK29-4 | zircon | 21.3 | 1.71 | 46.0 | 41.6 | 0.7 | 55.6 | 0.90 | 5.3 | 12.24 | 0.82 | 68.53 | |
| TV-17-RT-DB22 | iLH | Tons | Rautgara ? | 10.68 | 0.47 | 0.12 | zTV-17-RT-DB22-1 | zircon | 10.8 | 0.87 | 118.3 | 96.0 | 0.6 | 140.4 | 0.81 | 6.4 | 6.78 | 0.78 | 55.11 | |
| | | | | | | | zTV-17-RT-DB22-2 | zircon | 10.8 | 0.87 | 184.2 | 177.0 | 9.2 | 225.0 | 0.96 | 10.5 | 8.06 | 0.79 | 58.19 | |
| | | | | | | | zTV-17-RT-DB22-3 | zircon | 10.3 | 0.83 | 113.0 | 70.7 | 1.4 | 129.3 | 0.63 | 5.7 | 9.03 | 0.79 | 57.46 | |
| | | | | | | | zTV-17-RT-DB22-4 | zircon | 10.7 | 0.86 | 48.5 | 50.8 | 0.9 | 60.2 | 1.05 | 2.8 | 6.97 | 0.79 | 56.23 | |
| TV-17-RTG-1 | iLH | Tons | Rautgara ? | 9.88 | 4.87 | 0.81 | zTV-17-RTG-1-1 | zircon | 12.3 | 0.98 | 121.8 | 155.9 | 3.6 | 157.8 | 1.28 | 7.6 | 3.09 | 0.72 | 42.57 | |
| | | | | | | | zTV-17-RTG-1-2 | zircon | 7.7 | 0.62 | 205.7 | 194.1 | 3.0 | 250.4 | 0.94 | 7.5 | 2.73 | 0.71 | 40.68 | |
| | | | | | | | zTV-17-RTG-1-3 | zircon | 8.2 | 0.66 | 127.8 | 125.7 | 1.4 | 156.7 | 0.98 | 5.1 | 3.44 | 0.73 | 43.16 | |
| | | | | | | | zTV-17-RTG-1-4 | zircon | 13.4 | 1.07 | 204.5 | 144.6 | 2.4 | 237.8 | 0.71 | 12.2 | 2.62 | 0.71 | 40.27 | |
| | | | | | | | zTV-17-RTG-1-5 | zircon | 9.9 | 0.79 | 84.2 | 100.8 | 2.3 | 107.5 | 1.20 | 4.0 | 2.16 | 0.69 | 37.75 | |
| | | | | | | | zTV-17-RTG-1-6 | zircon | 7.8 | 0.62 | 343.8 | 205.2 | 13.1 | 391.1 | 0.60 | 11.8 | 2.95 | 0.71 | 40.40 | |
| TVP-BNG-18 | iLH | Tons | Berinag | 9.98 | 3.68 | 0.74 | zTVP-BNG-18-1 | zircon | 8.6 | 0.69 | 312.9 | 163.5 | 0.8 | 350.5 | 0.52 | 11.5 | 2.52 | 0.71 | 39.30 | |
| | | | | | | | zTVP-BNG-18-2 | zircon | 11.4 | 0.91 | 307.3 | 141.7 | 1.9 | 339.9 | 0.46 | 15.2 | 3.35 | 0.73 | 42.60 | |
| | | | | | | | zTVP-BNG-18-3 | zircon | 12.5 | 1.00 | 252.3 | 58.7 | 0.7 | 265.8 | 0.23 | 12.9 | 2.93 | 0.72 | 40.28 | |
| | | | | | | | zTVP-BNG-18-4 | zircon | 8.9 | 0.71 | 235.0 | 296.6 | 0.7 | 303.3 | 1.26 | 11.0 | 4.18 | 0.75 | 47.08 | |
| | | | | | | | zTVP-BNG-18-5 | zircon | 8.5 | 0.68 | 429.0 | 45.5 | 1.7 | 439.5 | 0.11 | 14.7 | 2.99 | 0.73 | 41.52 | |
| | | | | | | | zTVP-BNG-18-6* | zircon | 15.8 | 1.26 | 389.4 | 249.5 | 3.0 | 446.9 | 0.64 | 26.1 | 2.00 | 0.68 | 36.32 | |
| 15HP06 | iLH | Rampur | Berinag | 12.75 | 5.06 | 1.27 | z15HP06-1 | zircon | 13.1 | 1.05 | 99.9 | 27.1 | 1.2 | 106.1 | 0.27 | 5.5 | 3.61 | 0.73 | 42.59 | |
| | | | | | | | z15HP06-2 | zircon | 15.2 | 1.22 | 174.0 | 113.0 | 5.3 | 200.0 | 0.65 | 12.1 | 3.40 | 0.73 | 43.37 | |
| | | | | | | | z15HP06-3 | zircon | 9.9 | 0.79 | 165.0 | 264.0 | 5.0 | 225.8 | 1.60 | 8.9 | 4.05 | 0.73 | 45.26 | |
| | | | | | | | z15HP06-4 | zircon | 10.3 | 0.82 | 138.1 | 125.1 | 9.3 | 166.9 | 0.91 | 7.3 | 7.55 | 0.79 | 56.46 | |
| 15HP09 | iLH | Rampur | Baragaon Gneiss | 9.35 | 2.68 | 0.67 | z15HP09-1 | zircon | 8.5 | 0.68 | 300.2 | 45.6 | 1.9 | 310.7 | 0.15 | 12.1 | 18.26 | 0.85 | 76.45 | |
| | | | | | | | z15HP09-2 | zircon | 10.9 | 0.87 | 375.3 | 95.7 | 4.3 | 397.4 | 0.25 | 19.3 | 13.50 | 0.82 | 66.63 | |
| | | | | | | | z15HP09-3 | zircon | 8.0 | 0.64 | 324.8 | 97.2 | 2.6 | 347.2 | 0.30 | 12.6 | 16.65 | 0.84 | 74.65 | |
| | | | | | | | z15HP09-4 | zircon | 10.0 | 0.80 | 258.6 | 33.7 | 2.0 | 266.4 | 0.13 | 11.1 | 5.40 | 0.78 | 51.32 | |

Table 2 Bedrock (U-Th)/He single aliquot summary (continued)

| Sample | Zone | Transect | Formation | Average | 2SD | 2SE | Aliquot | mineral | Age, Ma | err., Ma | U (ppm) | Th (ppm) | 147Sm (ppm) | [U]e | Th/U | He (nmol/g) | mass (ug) | Ft | ESR | Fractured grain |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP14 | iLH | Rampur | Baragaon Gneiss | 12.54 | 3.73 | 1.86 | z15HP14-1 | zircon | 2.5 | 0.20 | 181.4 | 442.0 | 2.8 | 283.1 | 2.44 | 2.7 | 2.62 | 0.70 | 39.56 | |
| | | | | | | | z15HP14-2 | zircon | 11.2 | 0.90 | 505.9 | 133.8 | 2.0 | 536.7 | 0.26 | 23.8 | 3.15 | 0.73 | 42.86 | |
| | | | | | | | z15HP14-3 | zircon | 13.9 | 1.11 | 685.3 | 58.7 | 2.4 | 698.8 | 0.09 | 42.6 | 9.78 | 0.82 | 62.76 | |
| | | | | | | | z15HP14-4 | zircon | 4.8 | 0.38 | 375.0 | 37.1 | 1.4 | 383.5 | 0.10 | 7.6 | 4.55 | 0.76 | 47.81 | |
| 15HP17 | iLH | Rampur | Wangtu Gneiss | 7.60 | 4.68 | 1.17 | z15HP17-1 | zircon | 8.1 | 0.65 | 638.1 | 172.1 | 4.1 | 677.8 | 0.27 | 24.2 | 12.07 | 0.82 | 65.29 | |
| | | | | | | | z15HP17-2 | zircon | 7.3 | 0.59 | 327.0 | 82.3 | 4.0 | 346.0 | 0.25 | 11.5 | 20.87 | 0.84 | 74.77 | |
| | | | | | | | z15HP17-3 | zircon | 10.3 | 0.83 | 375.1 | 131.4 | 4.5 | 405.4 | 0.35 | 18.5 | 11.69 | 0.82 | 64.84 | |
| | | | | | | | z15HP17-4 | zircon | 4.6 | 0.37 | 302.6 | 89.3 | 4.9 | 323.2 | 0.30 | 6.4 | 8.19 | 0.79 | 55.00 | |
| 15HP19 | iLH | Rampur | Wangtu Gneiss | 2.38 | 0.86 | 0.29 | z15HP19-1 | zircon | 10.3 | 0.82 | 163.2 | 17.8 | 0.9 | 167.3 | 0.11 | 6.9 | 3.36 | 0.74 | 43.05 | |
| | | | | | | | z15HP19-2 | zircon | 2.1 | 0.17 | 226.5 | 47.1 | 2.2 | 237.3 | 0.21 | 2.0 | 5.34 | 0.76 | 48.86 | |
| | | | | | | | z15HP19-3 | zircon | 2.2 | 0.17 | 348.7 | 40.7 | 1.7 | 358.1 | 0.12 | 3.4 | 8.77 | 0.81 | 59.68 | |
| | | | | | | | z15HP19-4 | zircon | 2.9 | 0.23 | 373.9 | 46.7 | 2.0 | 384.7 | 0.12 | 4.6 | 5.93 | 0.78 | 51.86 | |
| 15HP25 | iLH | Rampur | Damtha | 6.71 | 2.84 | 0.71 | z15HP25-1 | zircon | 6.3 | 0.50 | 288.4 | 183.3 | 3.8 | 330.6 | 0.64 | 8.2 | 3.59 | 0.74 | 44.29 | |
| | | | | | | | z15HP25-2 | zircon | 8.7 | 0.70 | 140.8 | 68.2 | 1.4 | 156.5 | 0.48 | 5.3 | 3.00 | 0.73 | 42.32 | |
| | | | | | | | z15HP25-3 | zircon | 6.5 | 0.52 | 420.6 | 78.3 | 4.9 | 438.7 | 0.19 | 10.9 | 2.36 | 0.70 | 38.00 | |
| | | | | | | | z15HP25-4 | zircon | 5.3 | 0.43 | 293.9 | 158.1 | 3.1 | 330.3 | 0.54 | 6.4 | 1.72 | 0.67 | 34.69 | |
| YU911176B | iLH | Tons | - | 11.80 | 3.71 | 1.24 | zYU911176B-1 | zircon | 11.0 | 0.88 | 179.8 | 72.4 | 9.1 | 196.5 | 0.40 | 9.0 | 5.48 | 0.77 | 52.02 | |
| | | | | | | | zYU911176B-2 | zircon | 10.5 | 0.84 | 123.7 | 56.3 | 7.1 | 136.7 | 0.46 | 6.2 | 8.90 | 0.80 | 60.11 | |
| | | | | | | | zYU911176B-3* | zircon | 18.4 | 1.47 | 137.5 | 35.7 | 6.3 | 145.7 | 0.26 | 11.4 | 6.87 | 0.79 | 54.39 | |
| | | | | | | | zYU911176B-4 | zircon | 13.9 | 1.11 | 208.3 | 107.9 | 17.0 | 233.3 | 0.52 | 14.6 | 15.91 | 0.83 | 71.44 | |
| YU911191 | iLH | Tons | - | 8.65 | 0.95 | 0.32 | zYU911191-1* | zircon | 5.0 | 0.40 | 324.4 | 139.5 | 2.5 | 356.6 | 0.43 | 7.6 | 7.62 | 0.79 | 55.12 | |
| | | | | | | | zYU911191-2 | zircon | 8.1 | 0.65 | 231.3 | 125.0 | 1.9 | 260.1 | 0.54 | 9.7 | 20.53 | 0.85 | 79.74 | |
| | | | | | | | zYU911191-3 | zircon | 8.9 | 0.71 | 856.3 | 331.1 | 6.3 | 932.6 | 0.39 | 35.1 | 8.16 | 0.79 | 55.12 | |
| | | | | | | | zYU911191-4 | zircon | 9.0 | 0.72 | 423.8 | 133.3 | 1.8 | 454.5 | 0.31 | 16.6 | 4.11 | 0.75 | 47.18 | |
| YU911201 | iLH | Tons | - | 8.26 | 1.23 | 0.31 | zYU911201-1 | zircon | 8.9 | 0.71 | 234.4 | 158.7 | 2.5 | 270.9 | 0.68 | 10.5 | 11.16 | 0.80 | 60.89 | |
| | | | | | | | zYU911201-2 | zircon | 7.5 | 0.60 | 324.3 | 180.3 | 3.4 | 365.8 | 0.56 | 11.7 | 7.85 | 0.79 | 55.67 | |
| | | | | | | | zYU911201-3 | zircon | 8.0 | 0.64 | 141.7 | 58.4 | 1.8 | 155.2 | 0.41 | 5.7 | 17.66 | 0.84 | 75.32 | |
| | | | | | | | zYU911201-4 | zircon | 8.5 | 0.68 | 400.7 | 155.8 | 2.5 | 436.6 | 0.39 | 16.1 | 8.89 | 0.80 | 59.01 | |
| 15HP70 | iLH | Mussoorie/ Yamuna | Damtha | 11.31 | 2.57 | 0.86 | z15HP70-1 | zircon | 46.7 | 3.74 | 73.5 | 90.5 | 3.1 | 94.3 | 1.23 | 15.9 | 1.79 | 0.66 | 34.44 | |
| | | | | | | | z15HP70-2 | zircon | 12.1 | 0.97 | 114.5 | 126.1 | 2.1 | 143.5 | 1.10 | 6.3 | 1.67 | 0.66 | 34.26 | |
| | | | | | | | z15HP70-3 | zircon | 9.8 | 0.79 | 107.7 | 69.7 | 3.2 | 123.7 | 0.65 | 4.4 | 1.52 | 0.66 | 33.93 | |
| | | | | | | | z15HP70-4 | zircon | 12.0 | 0.96 | 150.5 | 103.5 | 4.9 | 174.3 | 0.69 | 7.0 | 1.12 | 0.62 | 29.79 | |
| 15HP71 | iLH | Mussoorie/ Yamuna | Granitic Gneiss/Berinag Thrust HW | 16.57 | 2.86 | 0.95 | z15HP71-1 | zircon | 18.2 | 1.45 | 193.1 | 127.5 | 3.9 | 222.5 | 0.66 | 15.9 | 3.76 | 0.73 | 42.69 | |
| | | | | | | | z15HP71-2 | zircon | 16.2 | 1.29 | 189.5 | 66.3 | 0.8 | 204.7 | 0.35 | 12.1 | 1.71 | 0.68 | 34.83 | |
| | | | | | | | z15HP71-3 | zircon | 50.8 | 4.06 | 109.6 | 68.5 | 2.2 | 125.3 | 0.62 | 26.4 | 4.99 | 0.76 | 49.83 | |
| | | | | | | | z15HP71-4 | zircon | 15.4 | 1.23 | 229.1 | 157.1 | 2.7 | 265.3 | 0.69 | 14.8 | 1.76 | 0.67 | 34.56 | |

Table 2 Bedrock (U-Th)/He single aliquot summary (continued)

| Sample | Zone | Transect | Formation | Average | 2SD | 2SE | Aliquot | mineral | Age, Ma | err., Ma | U (ppm) | Th (ppm) | 147Sm (ppm) | [U]e | Th/U | He (nmol/g) | mass (ug) | Ft | ESR | Fractured grain |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP72 | iLH | Mussoorie/ Yamuna | Berinag | 14.56 | 4.35 | 1.45 | z15HP72-1 | zircon | 16.0 | 1.28 | 198.3 | 66.2 | 5.3 | 213.6 | 0.33 | 13.8 | 4.31 | 0.75 | 46.10 | |
| | | | | | | | z15HP72-2 | zircon | - | - | 0.2 | 0.0 | 0.0 | 0.2 | 0.22 | 9.6 | 8.22 | 0.80 | 57.60 | lost |
| | | | | | | | z15HP72-3 | zircon | 12.1 | 0.96 | 155.7 | 75.3 | 100.5 | 173.6 | 0.48 | 8.3 | 3.19 | 0.73 | 42.56 | |
| | | | | | | | z15HP72-4 | zircon | 15.7 | 1.25 | 282.2 | 111.9 | 6.9 | 308.0 | 0.40 | 20.8 | 8.10 | 0.80 | 57.66 | |
| 15UK16 | iLH | Lansdowne | iLH | 15.67 | 3.72 | 0.93 | z15UK16-1 | zircon | 14.1 | 1.12 | 167.0 | 107.5 | 5.0 | 191.7 | 0.64 | 9.9 | 1.81 | 0.68 | 35.50 | |
| | | | | | | | z15UK16-2 | zircon | 17.4 | 1.39 | 115.9 | 35.9 | 2.4 | 124.1 | 0.31 | 8.5 | 3.22 | 0.73 | 43.01 | |
| | | | | | | | z15UK16-3 | zircon | 14.1 | 1.13 | 435.6 | 120.2 | 5.9 | 463.3 | 0.28 | 24.7 | 2.23 | 0.70 | 38.04 | |
| | | | | | | | z15UK16-4 | zircon | 17.2 | 1.38 | 149.3 | 155.1 | 1.7 | 185.0 | 1.04 | 10.9 | 1.23 | 0.63 | 30.76 | |
| STJ01 | MCT | Rampur | Haimanta | 23.70 | 5.20 | 1.73 | zSTJ01-1 | zircon | 21.00 | 1.68 | 118.20 | 85.30 | 4.40 | 137.90 | 0.72 | 12.20 | 6.31 | 0.77 | 52.88 | x |
| | | | | | | | zSTJ01-2 | zircon | 24.60 | 1.96 | 88.40 | 19.40 | 0.30 | 92.90 | 0.22 | 10.20 | 13.35 | 0.83 | 69.39 | |
| | | | | | | | zSTJ01-3 | zircon | 22.30 | 1.78 | 324.80 | 48.90 | 2.80 | 336.10 | 0.15 | 30.80 | 4.67 | 0.76 | 48.12 | |
| | | | | | | | zSTJ01-4 | zircon | 26.90 | 2.15 | 267.60 | 55.30 | 6.90 | 280.40 | 0.21 | 33.30 | 11.08 | 0.82 | 63.51 | |
| STJ02 | MCT | Rampur | Haimanta | 22.03 | 1.10 | 0.37 | zSTJ02-1 | zircon | 21.40 | 1.71 | 106.00 | 50.10 | 0.60 | 117.50 | 0.47 | 10.70 | 8.47 | 0.79 | 55.76 | x |
| | | | | | | | zSTJ02-2 | zircon | 22.40 | 1.79 | 504.50 | 43.10 | 0.60 | 514.50 | 0.09 | 49.70 | 8.43 | 0.80 | 57.27 | |
| | | | | | | | zSTJ02-3 | zircon | 17.20 | 1.38 | 417.20 | 237.80 | 1.10 | 471.90 | 0.57 | 36.50 | 17.31 | 0.83 | 71.55 | |
| | | | | | | | zSTJ02-4 | zircon | 22.30 | 1.78 | 311.50 | 276.40 | 1.10 | 375.20 | 0.89 | 34.30 | 5.52 | 0.76 | 48.82 | |
| ALM-2 | MCT | Almora | Almora | 12.66 | 1.21 | 0.30 | zALM-2-1 | zircon | 13.52 | 1.08 | 1034.11 | 258.60 | 4.21 | 1093.66 | 0.25 | 62.21 | 7.22 | 0.78 | 52.56 | x |
| | | | | | | | zALM-2-2 | zircon | 12.12 | 0.97 | 312.86 | 30.45 | 1.72 | 319.87 | 0.10 | 15.35 | 3.52 | 0.73 | 42.44 | |
| | | | | | | | zALM-2-3 | zircon | 12.54 | 1.00 | 2523.72 | 52.44 | 14.84 | 2535.87 | 0.02 | 127.26 | 3.90 | 0.74 | 43.56 | |
| | | | | | | | zALM-2-4 | zircon | 12.46 | 1.00 | 2440.72 | 41.25 | 4.29 | 2450.23 | 0.02 | 120.70 | 3.54 | 0.73 | 41.88 | |
| BRI01 | MCT | Rampur | Granite | 5.84 | 0.85 | 0.28 | zBRI01-1 | zircon | 5.35 | 0.43 | 1027.72 | 765.20 | 3.30 | 1203.89 | 0.74 | 26.87 | 7.27 | 0.77 | 51.74 | x |
| | | | | | | | zBRI01-2 | zircon | 6.06 | 0.48 | 1063.36 | 684.42 | 1.97 | 1220.93 | 0.64 | 31.47 | 8.03 | 0.79 | 55.91 | |
| | | | | | | | zBRI01-3 | zircon | 6.11 | 0.49 | 1670.66 | 1055.65 | 16.14 | 1913.75 | 0.63 | 50.63 | 9.65 | 0.80 | 59.93 | |
| | | | | | | | zBRI01-4* | zircon | 10.17 | 0.81 | 606.58 | 485.92 | 5.81 | 718.47 | 0.80 | 33.95 | 25.72 | 0.86 | 86.47 | |
| CRP04 | MCT | Chamba | Haimanta | 14.70 | 0.60 | 0.20 | zCRP04-1 | zircon | 14.70 | 1.18 | 571.60 | 255.30 | 3.50 | 630.40 | 0.45 | 39.30 | 7.20 | 0.78 | 54.13 | |
| | | | | | | | zCRP04-2 | zircon | 15.00 | 1.20 | 248.70 | 131.10 | 2.50 | 278.80 | 0.53 | 17.00 | 4.81 | 0.75 | 46.90 | |
| | | | | | | | zCRP04-3* | zircon | - | - | 0.20 | 0.50 | 0.10 | 0.30 | 2.69 | 42.20 | 7.05 | 0.77 | 53.89 | lost |
| | | | | | | | zCRP04-4 | zircon | 14.40 | 1.16 | 198.20 | 104.30 | 3.30 | 222.30 | 0.53 | 13.80 | 9.08 | 0.79 | 57.89 | |
| BRA01 | MCT | Rampur | MCT | 5.12 | 2.40 | 0.60 | zBRA01-1 | zircon | 3.81 | 0.30 | 334.95 | 39.26 | 0.69 | 343.99 | 0.12 | 5.03 | 2.59 | 0.71 | 38.94 | x |
| | | | | | | | zBRA01-2 | zircon | 5.70 | 0.46 | 524.94 | 134.65 | 0.86 | 555.94 | 0.26 | 12.02 | 2.42 | 0.70 | 38.16 | |
| | | | | | | | zBRA01-3 | zircon | 4.48 | 0.36 | 446.59 | 386.45 | 0.54 | 535.55 | 0.87 | 9.46 | 3.31 | 0.73 | 43.27 | |
| | | | | | | | zBRA01-4 | zircon | 6.48 | 0.52 | 245.74 | 193.30 | 0.40 | 290.24 | 0.79 | 7.21 | 2.97 | 0.71 | 39.72 | |
| BRA02 | MCT | Rampur | MCT | 8.28 | 1.90 | 0.63 | zBRA02-1 | zircon | 8.65 | 0.69 | 330.90 | 34.14 | 0.58 | 338.77 | 0.10 | 12.82 | 10.74 | 0.81 | 61.48 | |
| | | | | | | | zBRA02-2 | zircon | 7.20 | 0.58 | 374.69 | 49.46 | 0.88 | 386.08 | 0.13 | 10.77 | 2.72 | 0.72 | 39.90 | |
| | | | | | | | zBRA02-3 | zircon | 16.73 | 1.34 | 323.99 | 99.03 | 4.12 | 346.81 | 0.31 | 23.44 | 3.92 | 0.75 | 45.79 | |
| | | | | | | | zBRA02-4 | zircon | 8.99 | 0.72 | 286.98 | 90.54 | 0.77 | 307.83 | 0.32 | 10.79 | 3.08 | 0.72 | 41.08 | |

Table 2 Bedrock (U-Th)/He single aliquot summary (continued)

| Sample | Zone | Transect | Formation | Average | 2SD | 2SE | Aliquot | mineral | Age, Ma | err., Ma | U (ppm) | Th (ppm) | 147Sm (ppm) | [U]e | Th/U | He (nmol/g) | mass (ug) | Ft | ESR | Fractured grain |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BRH01 | MCT | Rampur | MCT | 7.71 | 3.54 | 1.18 | zBRH01-1 | zircon | 7.98 | 0.64 | 105.42 | 72.63 | 1.00 | 122.14 | 0.69 | 4.17 | 8.01 | 0.79 | 56.99 | |
| | | | | | | | zBRH01-2 | zircon | 20.04 | 1.60 | 440.41 | 129.40 | 0.63 | 470.20 | 0.29 | 38.80 | 5.17 | 0.76 | 48.63 | x |
| | | | | | | | zBRH01-3 | zircon | 5.83 | 0.47 | 147.59 | 46.13 | 0.90 | 158.22 | 0.31 | 4.02 | 10.24 | 0.81 | 61.55 | |
| | | | | | | | zBRH01-4 | zircon | 9.33 | 0.75 | 337.61 | 59.32 | 1.10 | 351.27 | 0.18 | 14.29 | 10.07 | 0.81 | 60.58 | |
| 15HP01 | MCT | Rampur | Haimanta | 20.77 | 0.12 | 0.04 | z15HP01-1 | zircon | 20.73 | 1.66 | 320.83 | 108.56 | 2.48 | 345.84 | 0.34 | 28.16 | 3.06 | 0.73 | 41.94 | |
| | | | | | | | z15HP01-2* | zircon | 9.18 | 0.73 | 708.26 | 225.46 | 1201.68 | 766.17 | 0.32 | 32.38 | 20.55 | 0.85 | 78.86 | |
| | | | | | | | z15HP01-4* | zircon | 16.63 | 1.33 | 404.21 | 36.38 | 15.23 | 412.67 | 0.09 | 29.51 | 8.33 | 0.80 | 56.85 | |
| | | | | | | | z15HP01-3 | zircon | 20.82 | 1.67 | 79.47 | 51.22 | 6.23 | 91.30 | 0.64 | 7.80 | 4.89 | 0.76 | 48.80 | |
| 15HP20B | MCT | Rampur | MCT | 6.29 | 4.85 | 1.21 | z15HP20B-1 | zircon | 9.03 | 0.72 | 256.96 | 76.24 | 3.44 | 274.53 | 0.30 | 10.36 | 6.16 | 0.77 | 51.67 | |
| | | | | | | | z15HP20B-2 | zircon | 5.20 | 0.42 | 118.18 | 65.61 | 2.99 | 133.29 | 0.56 | 2.96 | 9.21 | 0.79 | 56.67 | |
| | | | | | | | z15HP20B-3 | zircon | 3.51 | 0.28 | 69.45 | 43.40 | 1.90 | 79.45 | 0.63 | 1.21 | 9.50 | 0.80 | 59.76 | |
| | | | | | | | z15HP20B-4 | zircon | 7.41 | 0.59 | 69.94 | 31.34 | 1.42 | 77.16 | 0.45 | 2.34 | 4.48 | 0.76 | 48.12 | |
| 15UK02 | MCT | Mussoorie/ Yamuna | MCT WTF | WTF | WTF | WTF | z15UK02-1 | zircon | 393.5 | 31.48 | 137.2 | 50.4 | 2.8 | 148.8 | 0.37 | 243.7 | 4.42 | 0.75 | 46.31 | |
| | | | | | | | z15UK02-2 | zircon | 502.4 | 40.19 | 52.5 | 90.7 | 5.1 | 73.4 | 1.73 | 152.2 | 5.19 | 0.74 | 45.70 | |
| | | | | | | | z15UK02-3 | zircon | 74.0 | 5.92 | 424.6 | 208.4 | 9.4 | 472.7 | 0.49 | 127.6 | 1.56 | 0.67 | 34.58 | x |
| | | | | | | | z15UK02-4 | zircon | 253.1 | 20.25 | 144.0 | 70.5 | 5.8 | 160.2 | 0.49 | 169.3 | 4.71 | 0.76 | 48.60 | |
| | | | | | | | z15UK02-5 | zircon | 404.2 | 32.33 | 85.6 | 97.1 | 11.8 | 108.0 | 1.13 | 204.3 | 17.61 | 0.84 | 76.36 | |
| | | | | | | | z15UK02-6 | zircon | 405.5 | 32.44 | 190.7 | 92.1 | 9.4 | 212.0 | 0.48 | 380.4 | 7.42 | 0.79 | 57.83 | |
| 15UK12 | MCT | Lansdowne | MCT | 19.71 | 5.73 | 1.91 | z15UK12-1 | zircon | 20.06 | 1.61 | 285.93 | 65.82 | 4.00 | 301.10 | 0.23 | 24.26 | 4.19 | 0.74 | 44.73 | |
| | | | | | | | z15UK12-2 | zircon | 29.78 | 2.38 | 83.85 | 79.12 | 9.74 | 102.11 | 0.94 | 12.64 | 5.54 | 0.77 | 51.03 | |
| | | | | | | | z15UK12-3 | zircon | 16.69 | 1.33 | 394.46 | 86.14 | 1.36 | 414.29 | 0.22 | 27.64 | 4.10 | 0.74 | 44.03 | |
| | | | | | | | z15UK12-4 | zircon | 22.38 | 1.79 | 282.27 | 63.06 | 6.94 | 296.82 | 0.22 | 26.43 | 3.52 | 0.74 | 43.37 | |
| 15UK25 | MCT | Lansdowne | Gneiss MCT | 21.80 | 3.90 | 1.30 | z15UK25-1* | zircon | 26.48 | 2.12 | 1132.82 | 45.70 | 4.22 | 1143.36 | 0.04 | 126.75 | 5.60 | 0.78 | 50.90 | x |
| | | | | | | | z15UK25-2* | zircon | 16.23 | 1.30 | 1178.53 | 43.51 | 3.79 | 1188.57 | 0.04 | 76.23 | 3.11 | 0.73 | 42.01 | x |
| | | | | | | | z15UK25-3 | zircon | 20.42 | 1.63 | 3509.73 | 146.49 | 16.03 | 3543.54 | 0.04 | 276.14 | 2.30 | 0.71 | 37.93 | |
| | | | | | | | z15UK25-4 | zircon | 23.18 | 1.85 | 3250.42 | 221.97 | 11.17 | 3301.58 | 0.07 | 298.94 | 2.80 | 0.72 | 40.62 | |
| 15UK23 | MCT | Lansdowne | ??? | 20.71 | 0.93 | 0.47 | z15UK23-1 | zircon | 20.05 | 1.60 | 124.20 | 64.12 | 21.98 | 139.07 | 0.52 | 11.00 | 3.10 | 0.73 | 42.86 | |
| | | | | | | | z15UK23-2 | zircon | 33.01 | 2.64 | 113.91 | 72.57 | 12.79 | 130.68 | 0.64 | 16.45 | 2.35 | 0.70 | 39.04 | |
| | | | | | | | z15UK23-3 | zircon | 125.68 | 10.05 | 165.68 | 369.51 | 50.07 | 250.99 | 2.23 | 125.99 | 4.01 | 0.73 | 44.54 | |
| | | | | | | | z15UK23-4 | zircon | 21.37 | 1.71 | 235.80 | 99.40 | 9.34 | 258.73 | 0.42 | 23.94 | 7.90 | 0.80 | 59.33 | |
| 15UK24 | MCT | Lansdowne | ??? | 16.94 | 3.70 | 0.93 | z15UK24-1 | zircon | 19.34 | 1.55 | 250.74 | 43.17 | 2.30 | 260.69 | 0.17 | 20.69 | 5.46 | 0.76 | 47.75 | |
| | | | | | | | z15UK24-2 | zircon | 15.99 | 1.28 | 940.99 | 196.79 | 5.18 | 986.32 | 0.21 | 63.00 | 4.58 | 0.74 | 43.96 | |
| | | | | | | | z15UK24-3 | zircon | 17.35 | 1.39 | 275.65 | 98.54 | 1.99 | 298.34 | 0.36 | 20.92 | 4.56 | 0.75 | 45.97 | |
| | | | | | | | z15UK24-4 | zircon | 15.09 | 1.21 | 206.81 | 118.48 | 1.35 | 234.09 | 0.57 | 15.69 | 13.98 | 0.82 | 67.24 | |

Table 2 Bedrock (U-Th)/He single aliquot summary (continued)

| Sample | Zone | Transect | Formation | Average | 2SD | 2SE | Aliquot | mineral | Age, Ma | err., Ma | U (ppm) | Th (ppm) | 147Sm (ppm) | [U]e | Th/U | He (nmol/g) | mass (ug) | Ft | ESR | Fractured grain |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15UK26 | MCT | Lansdowne | ??? | 16.79 | 1.34 | 1.34 | z15UK26-1* | zircon | 32.91 | 2.63 | 1.62 | 1.61 | 17.07 | 2.08 | 0.99 | 0.26 | 1.71 | 0.67 | 35.44 | Not Zircon |
| | | | | | | | z15UK26-2* | zircon | 15.77 | 1.26 | 0.68 | 1.85 | 9.75 | 1.16 | 2.70 | 0.07 | 2.35 | 0.70 | 39.57 | Not Zircon |
| | | | | | | | z15UK26-3 | zircon | 16.79 | 1.34 | 224.35 | 39.84 | 2.14 | 233.54 | 0.18 | 13.14 | 0.97 | 0.62 | 28.55 | |
| | | | | | | | z15UK26-4* | zircon | 35.70 | 2.86 | 11.56 | 6.40 | 33.87 | 13.20 | 0.55 | 1.75 | 1.73 | 0.68 | 35.67 | Not Zircon |
| ND01 | MCT | Nanital | ??? | 20.57 | 4.17 | 1.04 | zND01-1 | zircon | 19.58 | 1.57 | 258.09 | 72.55 | 2.97 | 274.80 | 0.28 | 22.85 | 6.31 | 0.79 | 54.60 | |
| | | | | | | | zND01-2 | zircon | 18.13 | 1.45 | 164.77 | 110.89 | 2.72 | 190.31 | 0.67 | 12.51 | 1.78 | 0.67 | 34.53 | |
| | | | | | | | zND01-3 | zircon | 21.97 | 1.76 | 254.43 | 155.30 | 4.75 | 290.20 | 0.61 | 24.12 | 2.19 | 0.70 | 38.22 | |
| | | | | | | | zND01-4 | zircon | 22.61 | 1.81 | 159.89 | 101.58 | 4.29 | 183.29 | 0.64 | 15.46 | 2.10 | 0.69 | 36.89 | |

Table 3 Outer Lesser Himalaya zircon U-Pb Results

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MGM02_1 | 104 | 0.90 | 3.87200 | 0.03000 | 0.28760 | 0.00250 | 0.66603 | 1607.6 | 6.3 | 1629.0 | 12.0 | 1586 | 14 | 1586.0 | 14.0 | 2.7 | Single Age |
| MGM02_2 | 259.9 | 1.55 | 4.99600 | 0.03700 | 0.31920 | 0.00250 | 0.64981 | 1818.4 | 6.2 | 1785.0 | 12.0 | 1859 | 14 | 1859.0 | 14.0 | 4.0 | Single Age |
| MGM02_3 | 409 | 1.63 | 4.72600 | 0.03800 | 0.30430 | 0.00280 | 0.75915 | 1771.5 | 6.7 | 1713.0 | 14.0 | 1847 | 11 | 1847.0 | 11.0 | 7.3 | Single Age |
| MGM02_4 | 323 | 1.60 | 5.09400 | 0.03600 | 0.32040 | 0.00230 | 0.66116 | 1834.9 | 6.0 | 1792.0 | 11.0 | 1874 | 12 | 1874.0 | 12.0 | 4.4 | Single Age |
| MGM02_5 | 137 | 0.94 | 2.20600 | 0.02000 | 0.20150 | 0.00170 | 0.49440 | 1182.5 | 6.4 | 1183.4 | 9.2 | 1180 | 19 | 1180.0 | 19.0 | 0.3 | Single Age |
| MGM02_6 | 123.9 | 1.48 | 4.39100 | 0.04300 | 0.29550 | 0.00240 | 0.50939 | 1711.2 | 7.9 | 1669.0 | 12.0 | 1753 | 19 | 1753.0 | 19.0 | 4.8 | Single Age |
| MGM02_7 | 371 | 9.60 | 1.75600 | 0.04600 | 0.16000 | 0.00340 | 0.51963 | 1028.0 | 17.0 | 957.0 | 19.0 | 1199 | 41 | 1199.0 | 41.0 | 20.2 | Single Age |
| MGM02_8 | 426 | 0.86 | 4.31800 | 0.06200 | 0.29920 | 0.00460 | 0.70673 | 1696.0 | 12.0 | 1687.0 | 23.0 | 1738 | 22 | 1738.0 | 22.0 | 2.9 | Single Age |
| MGM02_9 | 108 | 1.36 | 10.19000 | 0.17000 | 0.45220 | 0.00750 | 0.73830 | 2453.0 | 15.0 | 2409.0 | 34.0 | 2495 | 21 | 2495.0 | 21.0 | 3.4 | Single Age |
| MGM02_10 | 222 | 2.19 | 5.28300 | 0.06300 | 0.33610 | 0.00460 | 0.74625 | 1867.0 | 10.0 | 1867.0 | 22.0 | 1860 | 15 | 1860.0 | 15.0 | 0.4 | Single Age |
| MGM02_12 | 173.5 | 1.00 | 10.37300 | 0.05200 | 0.45590 | 0.00310 | 0.53485 | 2468.5 | 4.6 | 2421.0 | 14.0 | 2509 | 10 | 2509.0 | 10.0 | 3.5 | Single Age |
| MGM02_13 | 391 | 1.62 | 1.34100 | 0.01200 | 0.14390 | 0.00150 | 0.43434 | 863.3 | 5.3 | 866.4 | 8.5 | 851 | 21 | 851.0 | 21.0 | 1.8 | Single Age |
| MGM02_14 | 202 | 2.24 | 5.10000 | 0.03500 | 0.32600 | 0.00280 | 0.57396 | 1835.8 | 5.8 | 1819.0 | 14.0 | 1857 | 14 | 1857.0 | 14.0 | 2.0 | Single Age |
| MGM02_15 | 237 | 2.08 | 5.01700 | 0.04300 | 0.31980 | 0.00290 | 0.75832 | 1822.9 | 7.5 | 1789.0 | 14.0 | 1864 | 13 | 1864.0 | 13.0 | 4.0 | Single Age |
| MGM02_16 | 233.6 | 2.11 | 5.22400 | 0.04500 | 0.33140 | 0.00310 | 0.60815 | 1856.8 | 7.3 | 1845.0 | 15.0 | 1866 | 12 | 1866.0 | 12.0 | 1.1 | Single Age |
| MGM02_17 | 93.6 | 0.64 | 1.47800 | 0.02100 | 0.15340 | 0.00180 | 0.55549 | 920.8 | 8.5 | 919.8 | 9.9 | 921 | 25 | 921.0 | 25.0 | 0.1 | Single Age |
| MGM02_18 | 210 | 0.36 | 1.10200 | 0.01400 | 0.12370 | 0.00150 | 0.46276 | 754.1 | 6.6 | 751.9 | 8.5 | 767 | 25 | 751.9 | 8.5 | 0.3 | Single Age |
| MGM02_19 | 451 | 4.95 | 5.08800 | 0.04900 | 0.32650 | 0.00370 | 0.69212 | 1833.8 | 8.2 | 1821.0 | 18.0 | 1861 | 14 | 1861.0 | 14.0 | 2.1 | Single Age |
| MGM02_20 | 280.8 | 0.93 | 3.72000 | 0.03000 | 0.27500 | 0.00270 | 0.61996 | 1575.3 | 6.5 | 1566.0 | 14.0 | 1589 | 15 | 1589.0 | 15.0 | 1.4 | Single Age |
| MGM02_21 | 167 | 0.35 | 1.08400 | 0.01600 | 0.12240 | 0.00180 | 0.48284 | 745.1 | 7.8 | 744.0 | 10.0 | 771 | 33 | 744.0 | 10.0 | 0.1 | Single Age |
| MGM02_22 | 140.6 | 0.98 | 5.35600 | 0.07000 | 0.34020 | 0.00540 | 0.65835 | 1877.0 | 11.0 | 1887.0 | 26.0 | 1853 | 23 | 1853.0 | 23.0 | 1.8 | Single Age |
| MGM02_23 | 115.7 | 1.29 | 4.44200 | 0.03700 | 0.29890 | 0.00250 | 0.59434 | 1719.7 | 6.8 | 1686.0 | 13.0 | 1762 | 14 | 1762.0 | 14.0 | 4.3 | Single Age |
| MGM02_24 | 110.5 | 0.72 | 1.37700 | 0.02800 | 0.14710 | 0.00240 | 0.37274 | 878.0 | 12.0 | 884.0 | 13.0 | 876 | 34 | 876.0 | 34.0 | 0.9 | Single Age |
| MGM02_25 | 331 | 1.87 | 5.08000 | 0.06700 | 0.32650 | 0.00460 | 0.78313 | 1832.0 | 11.0 | 1821.0 | 23.0 | 1865 | 17 | 1865.0 | 17.0 | 2.4 | Single Age |
| MGM02_26 | 103 | 1.24 | 11.21000 | 0.22000 | 0.48870 | 0.00920 | 0.91230 | 2538.0 | 18.0 | 2563.0 | 40.0 | 2514 | 17 | 2514.0 | 17.0 | 1.9 | Single Age |
| MGM02_27 | 238 | 2.30 | 5.14400 | 0.08700 | 0.32750 | 0.00530 | 0.70491 | 1844.0 | 14.0 | 1826.0 | 26.0 | 1846 | 23 | 1846.0 | 23.0 | 1.1 | Single Age |
| MGM02_28 | 187.7 | 0.50 | 3.68900 | 0.03600 | 0.26870 | 0.00230 | 0.62967 | 1569.8 | 7.5 | 1534.0 | 12.0 | 1613 | 16 | 1613.0 | 16.0 | 4.9 | Single Age |
| MGM02_29 | 234.2 | 1.49 | 4.62600 | 0.02900 | 0.30850 | 0.00260 | 0.62402 | 1754.5 | 5.2 | 1735.0 | 13.0 | 1779 | 12 | 1779.0 | 12.0 | 2.5 | Single Age |
| MGM02_30 | 178 | 1.92 | 5.16500 | 0.04500 | 0.33120 | 0.00350 | 0.71162 | 1846.3 | 7.5 | 1844.0 | 17.0 | 1848 | 13 | 1848.0 | 13.0 | 0.2 | Single Age |
| MGM02_31 | 201.9 | 0.93 | 4.87200 | 0.06700 | 0.31870 | 0.00440 | 0.53498 | 1799.0 | 12.0 | 1783.0 | 22.0 | 1818 | 28 | 1818.0 | 28.0 | 1.9 | Single Age |
| MGM02_32 | 155 | 1.46 | 1.34100 | 0.01900 | 0.14410 | 0.00160 | 0.63604 | 863.1 | 8.3 | 867.8 | 9.2 | 843 | 26 | 843.0 | 9.2 | 0.5 | Single Age |
| MGM02_33 | 19.6 | 1.42 | 1.43000 | 0.03400 | 0.14810 | 0.00260 | 0.35506 | 900.0 | 14.0 | 890.0 | 15.0 | 925 | 47 | 925.0 | 47.0 | 3.8 | Single Age |
| MGM02_34 | 328 | 1.29 | 12.85900 | 0.09000 | 0.51030 | 0.00390 | 0.61583 | 2669.1 | 6.6 | 2660.0 | 17.0 | 2687 | 11 | 2687.0 | 11.0 | 1.0 | Single Age |
| MGM02_35 | 189.7 | 0.62 | 6.90000 | 0.13000 | 0.34540 | 0.00670 | 0.85911 | 2102.0 | 16.0 | 1916.0 | 31.0 | 2288 | 16 | 2288.0 | 16.0 | 16.3 | Single Age |
| MGM02_36 | 139.2 | 2.02 | 5.12100 | 0.04200 | 0.32670 | 0.00320 | 0.71877 | 1839.2 | 6.9 | 1822.0 | 15.0 | 1861 | 13 | 1861.0 | 13.0 | 2.1 | Single Age |
| MGM02_37 | 205.9 | 3.75 | 4.96400 | 0.03500 | 0.31850 | 0.00250 | 0.58202 | 1813.8 | 5.9 | 1782.0 | 12.0 | 1851 | 13 | 1851.0 | 13.0 | 3.7 | Single Age |
| MGM02_38 | 81.6 | 0.77 | 3.56800 | 0.05500 | 0.26860 | 0.00390 | 0.58451 | 1541.0 | 12.0 | 1533.0 | 20.0 | 1575 | 26 | 1575.0 | 26.0 | 2.7 | Single Age |
| MGM02_39 | 86.1 | 1.73 | 2.75200 | 0.02800 | 0.23030 | 0.00230 | 0.40653 | 1342.0 | 7.6 | 1336.0 | 12.0 | 1344 | 23 | 1344.0 | 23.0 | 0.6 | Single Age |
| MGM02_40 | 140.8 | 1.24 | 5.35400 | 0.06300 | 0.33700 | 0.00420 | 0.69102 | 1878.0 | 10.0 | 1872.0 | 20.0 | 1887 | 18 | 1887.0 | 18.0 | 0.8 | Single Age |
| MGM02_41 | 429 | 2.59 | 5.19400 | 0.05600 | 0.33310 | 0.00460 | 0.73180 | 1851.1 | 9.3 | 1857.0 | 22.0 | 1847 | 19 | 1847.0 | 19.0 | 0.5 | Single Age |
| MGM02_42 | 149.2 | 7.80 | 20.86000 | 0.22000 | 0.62330 | 0.00620 | 0.64578 | 3131.0 | 10.0 | 3127.0 | 26.0 | 3137 | 17 | 3137.0 | 17.0 | 0.3 | Single Age |
| MGM02_43 | 170 | 0.37 | 1.54300 | 0.01700 | 0.15810 | 0.00180 | 0.49554 | 947.4 | 6.9 | 946.0 | 10.0 | 944 | 23 | 944.0 | 23.0 | 0.2 | Single Age |

Table 3 Outer Lesser Himalaya zircon U-Pb Results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MGM02_44 | 263 | 2.81 | 5.08300 | 0.04900 | 0.32410 | 0.00370 | 0.78487 | 1833.8 | 8.4 | 1809.0 | 18.0 | 1863 | 14 | 1863.0 | 14.0 | 2.9 | Single Age |
| MGM02_45 | 324 | 2.28 | 5.18600 | 0.04600 | 0.33040 | 0.00320 | 0.69180 | 1849.9 | 7.6 | 1840.0 | 16.0 | 1869 | 13 | 1869.0 | 13.0 | 1.6 | Single Age |
| MGM02_46 | 114.3 | 2.37 | 3.57200 | 0.03900 | 0.26610 | 0.00250 | 0.51930 | 1544.1 | 8.9 | 1523.0 | 12.0 | 1583 | 17 | 1583.0 | 17.0 | 3.8 | Single Age |
| MGM02_47 | 86.6 | 0.75 | 2.95200 | 0.02600 | 0.24150 | 0.00240 | 0.53850 | 1394.8 | 6.7 | 1394.0 | 13.0 | 1391 | 19 | 1391.0 | 19.0 | 0.2 | Single Age |
| MGM02_48 | 285 | 0.45 | 3.08000 | 0.03300 | 0.24540 | 0.00260 | 0.74505 | 1428.1 | 8.1 | 1416.0 | 13.0 | 1451 | 14 | 1451.0 | 14.0 | 2.4 | Single Age |
| MGM02_49 | 107.9 | 0.81 | 5.23200 | 0.05700 | 0.33640 | 0.00430 | 0.65035 | 1857.3 | 9.2 | 1872.0 | 20.0 | 1848 | 19 | 1848.0 | 19.0 | 1.3 | Single Age |
| MGM02_50 | 202.7 | 1.11 | 5.12100 | 0.05300 | 0.32710 | 0.00330 | 0.64529 | 1839.0 | 8.8 | 1826.0 | 17.0 | 1862 | 16 | 1862.0 | 16.0 | 1.9 | Single Age |
| MGM02_51 | 203 | 1.88 | 5.06400 | 0.04400 | 0.32690 | 0.00350 | 0.75336 | 1831.8 | 7.4 | 1823.0 | 17.0 | 1861 | 13 | 1861.0 | 13.0 | 2.0 | Single Age |
| MGM02_52 | 83.7 | 0.56 | 1.53500 | 0.01900 | 0.15850 | 0.00190 | 0.32470 | 943.9 | 7.8 | 948.0 | 10.0 | 932 | 30 | 932.0 | 30.0 | 1.7 | Single Age |
| MGM02_53 | 122.3 | 0.79 | 3.65900 | 0.03600 | 0.27140 | 0.00320 | 0.61370 | 1562.9 | 7.6 | 1547.0 | 16.0 | 1575 | 19 | 1575.0 | 19.0 | 1.8 | Single Age |
| MGM02_54 | 137.3 | 0.47 | 2.17500 | 0.02500 | 0.19900 | 0.00260 | 0.62038 | 1172.6 | 7.8 | 1170.0 | 14.0 | 1192 | 22 | 1192.0 | 22.0 | 1.8 | Single Age |
| MGM02_55 | 148.5 | 0.57 | 4.49600 | 0.03300 | 0.30640 | 0.00240 | 0.59999 | 1730.6 | 6.3 | 1723.0 | 12.0 | 1736 | 12 | 1736.0 | 12.0 | 0.7 | Single Age |
| MGM02_56 | 226.6 | 0.75 | 3.61300 | 0.04700 | 0.26010 | 0.00360 | 0.75707 | 1553.0 | 11.0 | 1490.0 | 19.0 | 1636 | 19 | 1636.0 | 19.0 | 8.9 | Single Age |
| MGM02_57 | 250 | 0.90 | 5.24300 | 0.05100 | 0.33380 | 0.00390 | 0.76251 | 1859.2 | 8.3 | 1856.0 | 19.0 | 1855 | 14 | 1855.0 | 14.0 | 0.1 | Single Age |
| MGM02_58 | 283 | 0.58 | 5.09600 | 0.03800 | 0.32750 | 0.00270 | 0.64799 | 1835.0 | 6.3 | 1826.0 | 13.0 | 1848 | 11 | 1848.0 | 11.0 | 1.2 | Single Age |
| MGM02_59 | 201.8 | 3.04 | 5.35100 | 0.03300 | 0.33740 | 0.00290 | 0.61235 | 1878.2 | 5.6 | 1874.0 | 14.0 | 1877 | 13 | 1877.0 | 13.0 | 0.2 | Single Age |
| MGM02_60 | 215.2 | 0.58 | 5.24300 | 0.03100 | 0.33490 | 0.00230 | 0.64476 | 1859.3 | 5.0 | 1862.0 | 11.0 | 1854 | 9 | 1853.6 | 9.4 | 0.5 | Single Age |
| MGM02_61 | 115.1 | 1.27 | 3.89300 | 0.04300 | 0.28150 | 0.00340 | 0.62244 | 1611.6 | 9.0 | 1599.0 | 17.0 | 1630 | 20 | 1630.0 | 20.0 | 1.9 | Single Age |
| MGM02_62 | 101.1 | 0.86 | 3.99700 | 0.03600 | 0.28790 | 0.00290 | 0.70919 | 1634.2 | 7.2 | 1631.0 | 15.0 | 1635 | 14 | 1635.0 | 14.0 | 0.2 | Single Age |
| MGM02_63 | 73.9 | 0.65 | 15.40000 | 0.19000 | 0.53860 | 0.00710 | 0.78120 | 2839.0 | 12.0 | 2776.0 | 30.0 | 2888 | 13 | 2888.0 | 13.0 | 3.9 | Single Age |
| MGM02_64 | 147 | 1.29 | 5.15900 | 0.05400 | 0.32940 | 0.00320 | 0.51776 | 1846.6 | 8.7 | 1835.0 | 16.0 | 1858 | 19 | 1858.0 | 19.0 | 1.2 | Single Age |
| MGM02_65 | 81 | 1.02 | 10.41000 | 0.19000 | 0.46710 | 0.00590 | 0.82946 | 2470.0 | 17.0 | 2475.0 | 25.0 | 2469 | 22 | 2469.0 | 22.0 | 0.2 | Single Age |
| MGM02_66 | 154.7 | 1.74 | 5.05000 | 0.04900 | 0.32160 | 0.00310 | 0.46421 | 1827.1 | 8.3 | 1799.0 | 15.0 | 1859 | 17 | 1859.0 | 17.0 | 3.2 | Single Age |
| MGM02_67 | 415 | 2.13 | 5.43500 | 0.07200 | 0.32060 | 0.00430 | 0.81083 | 1890.0 | 11.0 | 1792.0 | 21.0 | 1999 | 15 | 1999.0 | 15.0 | 10.4 | Single Age |
| MGM02_68 | 86.6 | 2.02 | 11.85000 | 0.11000 | 0.49210 | 0.00610 | 0.72246 | 2592.1 | 8.8 | 2582.0 | 27.0 | 2606 | 13 | 2606.0 | 13.0 | 0.9 | Single Age |
| MGM02_69 | 139.1 | 0.61 | 3.37400 | 0.02900 | 0.25950 | 0.00240 | 0.54027 | 1499.8 | 6.4 | 1487.0 | 12.0 | 1516 | 16 | 1516.0 | 16.0 | 1.9 | Single Age |
| MGM02_70 | 218.3 | 2.76 | 5.06600 | 0.04100 | 0.32510 | 0.00260 | 0.46135 | 1830.0 | 6.9 | 1816.0 | 12.0 | 1863 | 15 | 1863.0 | 15.0 | 2.5 | Single Age |
| MGM02_71 | 162 | 1.68 | 5.16900 | 0.04400 | 0.32950 | 0.00300 | 0.58399 | 1847.8 | 7.4 | 1837.0 | 14.0 | 1854 | 15 | 1854.0 | 15.0 | 0.9 | Single Age |
| MGM02_72 | 148.4 | 2.09 | 5.11400 | 0.04900 | 0.32610 | 0.00370 | 0.73021 | 1837.8 | 8.2 | 1819.0 | 18.0 | 1862 | 14 | 1862.0 | 14.0 | 2.3 | Single Age |
| MGM02_73 | 158 | 0.82 | 12.58000 | 0.08900 | 0.50360 | 0.00430 | 0.61360 | 2649.2 | 6.8 | 2629.0 | 19.0 | 2665 | 11 | 2665.0 | 11.0 | 1.4 | Single Age |
| MGM02_74 | 151.6 | 1.25 | 5.00600 | 0.04100 | 0.31820 | 0.00260 | 0.62939 | 1819.9 | 6.9 | 1781.0 | 13.0 | 1864 | 13 | 1864.0 | 13.0 | 4.5 | Single Age |
| MGM02_75 | 34.5 | 1.09 | 3.38100 | 0.04700 | 0.25510 | 0.00300 | 0.45045 | 1499.0 | 11.0 | 1464.0 | 15.0 | 1546 | 28 | 1546.0 | 28.0 | 5.3 | Single Age |
| MGM02_76 | 303 | 1.27 | 4.95200 | 0.08800 | 0.32320 | 0.00660 | 0.83822 | 1810.0 | 15.0 | 1809.0 | 33.0 | 1817 | 19 | 1817.0 | 19.0 | 0.4 | Single Age |
| MGM02_77 | 233.1 | 1.50 | 3.68200 | 0.02600 | 0.27450 | 0.00260 | 0.46372 | 1567.1 | 5.6 | 1563.0 | 13.0 | 1576 | 14 | 1576.0 | 14.0 | 0.8 | Single Age |
| MGM02_78 | 276 | 1.95 | 5.18800 | 0.04200 | 0.32990 | 0.00310 | 0.60231 | 1851.9 | 7.1 | 1838.0 | 15.0 | 1868 | 15 | 1868.0 | 15.0 | 1.6 | Single Age |
| MGM02_79 | 141.6 | 1.15 | 5.24500 | 0.04600 | 0.33170 | 0.00340 | 0.64725 | 1859.4 | 7.5 | 1846.0 | 16.0 | 1861 | 15 | 1861.0 | 15.0 | 0.8 | Single Age |
| MGM02_80 | 232 | 0.67 | 3.76300 | 0.03500 | 0.27670 | 0.00260 | 0.77568 | 1584.4 | 7.5 | 1574.0 | 13.0 | 1587 | 12 | 1587.0 | 12.0 | 0.8 | Single Age |
| MGM02_81 | 146 | 0.65 | 2.09000 | 0.02200 | 0.19390 | 0.00190 | 0.46432 | 1144.9 | 7.4 | 1142.0 | 10.0 | 1149 | 20 | 1149.0 | 20.0 | 0.6 | Single Age |
| MGM02_82 | 299 | 4.01 | 4.91000 | 0.04700 | 0.31550 | 0.00330 | 0.76152 | 1804.5 | 8.3 | 1767.0 | 16.0 | 1837 | 11 | 1837.0 | 11.0 | 3.8 | Single Age |
| MGM02_83 | 307 | 4.57 | 5.22200 | 0.08400 | 0.32570 | 0.00240 | 0.05536 | 1851.0 | 11.0 | 1817.0 | 12.0 | 1879 | 22 | 1879.0 | 22.0 | 3.3 | Single Age |
| MGM02_84 | 122.4 | 0.98 | 3.73200 | 0.03400 | 0.27690 | 0.00240 | 0.61509 | 1577.8 | 7.2 | 1576.0 | 12.0 | 1575 | 15 | 1575.0 | 15.0 | 0.1 | Single Age |
| MGM02_85 | 159.2 | 1.19 | 5.33800 | 0.04200 | 0.33680 | 0.00310 | 0.56698 | 1874.5 | 6.8 | 1871.0 | 15.0 | 1870 | 15 | 1870.0 | 15.0 | 0.1 | Single Age |

Table 3 Outer Lesser Himalaya zircon U-Pb Results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MGM02_86 | 86.1 | 1.16 | 10.13500 | 0.06900 | 0.45450 | 0.00310 | 0.46832 | 2446.7 | 6.2 | 2415.0 | 14.0 | 2471 | 11 | 2471.0 | 11.0 | 2.3 | Single Age |
| MGM02_87 | 117.6 | 0.46 | 4.56600 | 0.06100 | 0.29040 | 0.00430 | 0.70913 | 1742.0 | 11.0 | 1643.0 | 22.0 | 1858 | 21 | 1858.0 | 21.0 | 11.6 | Single Age |
| MGM02_88 | 83 | 1.26 | 4.05100 | 0.03900 | 0.28790 | 0.00240 | 0.49628 | 1644.1 | 7.8 | 1631.0 | 12.0 | 1650 | 17 | 1650.0 | 17.0 | 1.2 | Single Age |
| MGM02_89 | 128.2 | 0.98 | 5.08500 | 0.04600 | 0.32680 | 0.00290 | 0.56224 | 1834.5 | 7.3 | 1823.0 | 14.0 | 1863 | 15 | 1863.0 | 15.0 | 2.1 | Single Age |
| MGM02_90 | 317 | 1.57 | 1.61500 | 0.02300 | 0.16350 | 0.00210 | 0.83701 | 975.6 | 9.2 | 976.0 | 11.0 | 995 | 17 | 995.0 | 17.0 | 1.9 | Single Age |
| MGM02_91 | 274.9 | 0.99 | 5.13000 | 0.03800 | 0.32550 | 0.00320 | 0.72639 | 1841.6 | 6.2 | 1816.0 | 16.0 | 1872 | 12 | 1872.0 | 12.0 | 3.0 | Single Age |
| MGM02_92 | 137.8 | 1.19 | 5.32900 | 0.05300 | 0.33770 | 0.00330 | 0.66716 | 1873.0 | 8.5 | 1875.0 | 16.0 | 1868 | 14 | 1868.0 | 14.0 | 0.4 | Single Age |
| MGM02_93 | 259 | 2.52 | 8.81500 | 0.06400 | 0.43170 | 0.00310 | 0.76335 | 2319.3 | 6.7 | 2313.0 | 14.0 | 2325 | 8 | 2325.4 | 7.8 | 0.5 | Single Age |
| MGM02_94 | 292 | 2.10 | 5.23500 | 0.03800 | 0.33340 | 0.00240 | 0.56463 | 1858.8 | 6.2 | 1855.0 | 12.0 | 1864 | 13 | 1864.0 | 13.0 | 0.5 | Single Age |
| MGM02_95 | 72.7 | 1.10 | 7.28000 | 0.05700 | 0.39370 | 0.00280 | 0.65015 | 2146.9 | 7.1 | 2140.0 | 13.0 | 2153 | 12 | 2153.0 | 12.0 | 0.6 | Single Age |
| MGM02_96 | 465 | 1.69 | 4.43900 | 0.04200 | 0.30050 | 0.00430 | 0.69281 | 1719.5 | 7.9 | 1694.0 | 21.0 | 1743 | 17 | 1743.0 | 17.0 | 2.8 | Single Age |
| MGM02_97 | 516 | 1.48 | 4.33100 | 0.02300 | 0.29490 | 0.00200 | 0.59693 | 1699.1 | 4.3 | 1666.0 | 9.8 | 1734 | 12 | 1734.0 | 12.0 | 3.9 | Single Age |
| MGM02_98 | 309 | 3.88 | 4.96800 | 0.04300 | 0.31840 | 0.00300 | 0.66003 | 1815.7 | 7.3 | 1782.0 | 15.0 | 1854 | 13 | 1854.0 | 13.0 | 3.9 | Single Age |
| MGM02_99 | 113.2 | 1.17 | 5.19000 | 0.07600 | 0.32250 | 0.00520 | 0.73573 | 1850.0 | 12.0 | 1805.0 | 26.0 | 1908 | 20 | 1908.0 | 20.0 | 5.4 | Single Age |
| MGM02_100 | 871 | 53.00 | 5.23700 | 0.09000 | 0.32440 | 0.00650 | 0.68791 | 1858.0 | 15.0 | 1811.0 | 31.0 | 1915 | 28 | 1915.0 | 28.0 | 5.4 | Rim |
| MGM02_100 | 401 | 3.79 | 8.19400 | 0.06600 | 0.40130 | 0.00400 | 0.69885 | 2252.4 | 7.3 | 2175.0 | 18.0 | 2323 | 12 | 2323.0 | 12.0 | 6.4 | Core |
| MGM02_101 | 238 | 1.27 | 5.41400 | 0.04200 | 0.33850 | 0.00290 | 0.64186 | 1887.4 | 6.5 | 1879.0 | 14.0 | 1897 | 12 | 1897.0 | 12.0 | 0.9 | Single Age |
| MGM02_102 | 264.3 | 1.77 | 5.00000 | 0.03900 | 0.32340 | 0.00250 | 0.50469 | 1819.0 | 6.5 | 1806.0 | 12.0 | 1838 | 13 | 1838.0 | 13.0 | 1.7 | Single Age |
| MGM02_103 | 333 | 1.05 | 4.98600 | 0.05700 | 0.31730 | 0.00380 | 0.61368 | 1816.7 | 9.7 | 1776.0 | 18.0 | 1866 | 21 | 1866.0 | 21.0 | 4.8 | Single Age |
| MGM02_104 | 140.1 | 0.77 | 5.13600 | 0.04200 | 0.32750 | 0.00290 | 0.73811 | 1841.6 | 6.9 | 1828.0 | 14.0 | 1852 | 13 | 1852.0 | 13.0 | 1.3 | Single Age |
| MGM02_105 | 95.05 | 0.66 | 2.17600 | 0.03500 | 0.19670 | 0.00260 | 0.61645 | 1173.0 | 11.0 | 1157.0 | 14.0 | 1212 | 25 | 1212.0 | 25.0 | 4.5 | Single Age |
| MGM02_106 | 126 | 0.97 | 4.60500 | 0.04500 | 0.31120 | 0.00330 | 0.61189 | 1750.5 | 7.8 | 1746.0 | 16.0 | 1760 | 17 | 1760.0 | 17.0 | 0.8 | Single Age |
| MGM02_107 | 115.9 | 1.71 | 11.82000 | 0.12000 | 0.48600 | 0.00590 | 0.66071 | 2591.1 | 9.8 | 2552.0 | 25.0 | 2618 | 16 | 2618.0 | 16.0 | 2.5 | Single Age |
| MGM02_108 | 96.2 | 0.62 | 5.02000 | 0.05200 | 0.31920 | 0.00340 | 0.64558 | 1822.0 | 8.8 | 1785.0 | 17.0 | 1857 | 15 | 1857.0 | 15.0 | 3.9 | Single Age |
| MGM02_109 | 274 | 1.80 | 5.31300 | 0.04600 | 0.33510 | 0.00360 | 0.67131 | 1871.7 | 7.2 | 1863.0 | 17.0 | 1871 | 13 | 1871.0 | 13.0 | 0.4 | Single Age |
| MGM02_110 | 57.7 | 1.26 | 3.77100 | 0.04900 | 0.27370 | 0.00360 | 0.54122 | 1585.0 | 10.0 | 1561.0 | 19.0 | 1609 | 22 | 1609.0 | 22.0 | 3.0 | Single Age |
| MGM02_111 | 226 | 1.68 | 4.58300 | 0.03900 | 0.31080 | 0.00280 | 0.69657 | 1746.5 | 7.0 | 1744.0 | 14.0 | 1735 | 13 | 1735.0 | 13.0 | 0.5 | Single Age |
| MGM02_112 | 229 | 0.85 | 5.14700 | 0.03600 | 0.32600 | 0.00290 | 0.65281 | 1843.6 | 5.9 | 1819.0 | 14.0 | 1873 | 12 | 1873.0 | 12.0 | 2.9 | Single Age |
| MGM02_113 | 203 | 2.29 | 5.18300 | 0.04500 | 0.33310 | 0.00310 | 0.69574 | 1849.4 | 7.4 | 1853.0 | 15.0 | 1845 | 13 | 1845.0 | 13.0 | 0.4 | Single Age |
| MGM02_114 | 124.9 | 1.23 | 4.40400 | 0.03900 | 0.30320 | 0.00290 | 0.62305 | 1712.5 | 7.4 | 1707.0 | 14.0 | 1713 | 15 | 1713.0 | 15.0 | 0.4 | Single Age |
| MGM02_115 | 337 | 2.06 | 3.74300 | 0.02500 | 0.27540 | 0.00200 | 0.66032 | 1580.3 | 5.3 | 1568.0 | 10.0 | 1591 | 11 | 1591.0 | 11.0 | 1.4 | Single Age |
| MGM02_116 | 215 | 1.48 | 5.16600 | 0.03500 | 0.32810 | 0.00260 | 0.66039 | 1847.4 | 5.7 | 1829.0 | 12.0 | 1857 | 10 | 1856.7 | 9.8 | 1.5 | Single Age |
| MGM02_117 | 149.6 | 1.56 | 1.39000 | 0.01300 | 0.14560 | 0.00130 | 0.44243 | 885.3 | 5.4 | 876.3 | 7.6 | 897 | 21 | 897.0 | 21.0 | 2.3 | Single Age |
| MGM02_118 | 184 | 2.40 | 5.13300 | 0.03000 | 0.32930 | 0.00250 | 0.62198 | 1841.3 | 5.0 | 1835.0 | 12.0 | 1852 | 11 | 1852.0 | 11.0 | 0.9 | Single Age |
| MGM02_119 | 208 | 2.74 | 1.41000 | 0.01200 | 0.14790 | 0.00100 | 0.47061 | 893.7 | 5.0 | 888.9 | 5.7 | 904 | 17 | 904.0 | 17.0 | 1.7 | Single Age |
| MGM02_120 | 131.8 | 1.39 | 4.22800 | 0.04800 | 0.29720 | 0.00390 | 0.62585 | 1680.3 | 9.6 | 1677.0 | 19.0 | 1682 | 17 | 1682.0 | 17.0 | 0.3 | Single Age |
| DGH01_1 | 307 | 0.28 | 1.47700 | 0.02600 | 0.15170 | 0.00270 | 0.56418 | 920.0 | 11.0 | 910.0 | 15.0 | 964 | 30 | 964.0 | 30.0 | 5.6 | Single Age |
| DGH01_2 | 395 | 2.61 | 10.47000 | 0.15000 | 0.46420 | 0.00840 | 0.88063 | 2479.0 | 13.0 | 2461.0 | 36.0 | 2491 | 14 | 2491.0 | 14.0 | 1.2 | Single Age |
| DGH01_3 | 462 | 2.03 | 3.98700 | 0.05100 | 0.29130 | 0.00460 | 0.79589 | 1631.0 | 10.0 | 1647.0 | 23.0 | 1610 | 20 | 1610.0 | 20.0 | 2.3 | Single Age |
| DGH01_4 | 620 | 1.58 | 3.93400 | 0.05400 | 0.28700 | 0.00440 | 0.76777 | 1620.0 | 11.0 | 1626.0 | 22.0 | 1625 | 19 | 1625.0 | 19.0 | 0.1 | Single Age |
| DGH01_5 | 170 | 1.30 | 4.39800 | 0.04800 | 0.30480 | 0.00250 | 0.52788 | 1711.1 | 9.0 | 1715.0 | 12.0 | 1712 | 17 | 1712.0 | 17.0 | 0.2 | Single Age |
| DGH01_6 | 196 | 1.68 | 2.80400 | 0.04400 | 0.23240 | 0.00430 | 0.76501 | 1357.0 | 12.0 | 1346.0 | 22.0 | 1355 | 24 | 1355.0 | 24.0 | 0.7 | Single Age |

Table 3 Outer Lesser Himalaya zircon U-Pb Results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DGH01_7 | 184.8 | 0.44 | 1.51800 | 0.01800 | 0.15690 | 0.00190 | 0.57489 | 938.2 | 7.1 | 939.0 | 10.0 | 931 | 25 | 931.0 | 25.0 | 0.9 | Single Age |
| DGH01_8 | 214 | 1.39 | 2.22600 | 0.04500 | 0.20010 | 0.00410 | 0.57775 | 1191.0 | 15.0 | 1175.0 | 22.0 | 1220 | 33 | 1220.0 | 33.0 | 3.7 | Single Age |
| DGH01_9 | 277 | 0.66 | 1.53300 | 0.01800 | 0.15640 | 0.00200 | 0.58425 | 943.4 | 7.2 | 937.0 | 11.0 | 959 | 22 | 959.0 | 22.0 | 2.3 | Single Age |
| DGH01_10 | 47.1 | 1.27 | 2.51700 | 0.05100 | 0.21090 | 0.00350 | 0.37812 | 1277.0 | 15.0 | 1236.0 | 18.0 | 1325 | 43 | 1325.0 | 43.0 | 6.7 | Single Age |
| DGH01_11 | 626 | 95.00 | 4.71900 | 0.08600 | 0.31690 | 0.00690 | 0.74385 | 1773.0 | 16.0 | 1773.0 | 34.0 | 1772 | 27 | 1772.0 | 27.0 | 0.1 | Single Age |
| DGH01_12 | 233 | 0.97 | 4.60600 | 0.05500 | 0.31290 | 0.00430 | 0.74775 | 1751.7 | 9.9 | 1755.0 | 21.0 | 1750 | 16 | 1750.0 | 16.0 | 0.3 | Single Age |
| DGH01_13 | 116.3 | 1.42 | 2.70500 | 0.06400 | 0.21210 | 0.00600 | 0.69672 | 1329.0 | 17.0 | 1239.0 | 32.0 | 1447 | 43 | 1447.0 | 43.0 | 14.4 | Single Age |
| DGH01_14 | 804 | 1.29 | 10.34000 | 0.15000 | 0.46020 | 0.00770 | 0.83535 | 2464.0 | 13.0 | 2439.0 | 34.0 | 2492 | 16 | 2492.0 | 16.0 | 2.1 | Single Age |
| DGH01_15 | 100.8 | 0.87 | 2.10700 | 0.04400 | 0.19450 | 0.00380 | 0.36417 | 1150.0 | 14.0 | 1148.0 | 20.0 | 1169 | 44 | 1169.0 | 44.0 | 1.8 | Single Age |
| DGH01_16 | 204.1 | 0.46 | 1.57600 | 0.01900 | 0.16250 | 0.00200 | 0.48432 | 961.0 | 7.3 | 970.0 | 11.0 | 951 | 24 | 951.0 | 24.0 | 2.0 | Single Age |
| DGH01_17 | 291 | 0.56 | 4.40500 | 0.05400 | 0.30100 | 0.00360 | 0.71105 | 1714.4 | 9.8 | 1696.0 | 18.0 | 1746 | 16 | 1746.0 | 16.0 | 2.9 | Single Age |
| DGH01_18 | 132.7 | 0.84 | 2.12000 | 0.02500 | 0.19720 | 0.00230 | 0.35701 | 1154.7 | 8.2 | 1160.0 | 12.0 | 1139 | 29 | 1139.0 | 29.0 | 1.8 | Single Age |
| DGH01_19 | 330.3 | 3.32 | 10.52000 | 0.14000 | 0.47010 | 0.00730 | 0.77845 | 2481.0 | 12.0 | 2483.0 | 32.0 | 2484 | 18 | 2484.0 | 18.0 | 0.0 | Single Age |
| DGH01_20 | 858 | 2.15 | 3.12300 | 0.05400 | 0.24840 | 0.00610 | 0.84220 | 1438.0 | 13.0 | 1430.0 | 31.0 | 1459 | 28 | 1459.0 | 28.0 | 2.0 | Single Age |
| DGH01_21 | 343 | 5.02 | 10.14000 | 0.14000 | 0.45920 | 0.00740 | 0.75219 | 2446.0 | 13.0 | 2434.0 | 33.0 | 2446 | 19 | 2446.0 | 19.0 | 0.5 | Single Age |
| DGH01_22 | 445 | 0.51 | 1.48700 | 0.02700 | 0.15520 | 0.00300 | 0.67039 | 924.0 | 11.0 | 930.0 | 17.0 | 915 | 29 | 915.0 | 29.0 | 1.6 | Single Age |
| DGH01_23 | 318 | 1.70 | 2.80700 | 0.03600 | 0.23210 | 0.00310 | 0.59811 | 1358.4 | 9.3 | 1345.0 | 16.0 | 1368 | 22 | 1368.0 | 22.0 | 1.7 | Single Age |
| DGH01_24 | 274.9 | 1.85 | 10.17000 | 0.21000 | 0.46400 | 0.01000 | 0.84554 | 2448.0 | 19.0 | 2454.0 | 46.0 | 2449 | 22 | 2449.0 | 22.0 | 0.2 | Single Age |
| DGH01_25 | 516 | 1.43 | 2.50800 | 0.03300 | 0.21800 | 0.00270 | 0.77976 | 1273.6 | 9.5 | 1271.0 | 14.0 | 1280 | 16 | 1280.0 | 16.0 | 0.7 | Single Age |
| DGH01_26 | 505 | 3.57 | 1.49900 | 0.01400 | 0.15380 | 0.00150 | 0.53567 | 930.5 | 5.8 | 922.0 | 8.5 | 955 | 20 | 955.0 | 20.0 | 3.5 | Single Age |
| DGH01_27 | 686 | 6.40 | 1.99400 | 0.02300 | 0.18720 | 0.00190 | 0.60044 | 1113.0 | 7.8 | 1106.0 | 11.0 | 1120 | 18 | 1120.0 | 18.0 | 1.3 | Single Age |
| DGH01_28 | 307 | 1.16 | 4.59800 | 0.06500 | 0.31470 | 0.00470 | 0.69695 | 1748.0 | 12.0 | 1763.0 | 23.0 | 1733 | 17 | 1733.0 | 17.0 | 1.7 | Single Age |
| DGH01_29 | 69.1 | 1.15 | 3.12500 | 0.04600 | 0.25370 | 0.00430 | 0.51094 | 1438.0 | 11.0 | 1457.0 | 22.0 | 1427 | 30 | 1427.0 | 30.0 | 2.1 | Single Age |
| DGH01_30 | 558 | 1.35 | 1.53300 | 0.02500 | 0.15510 | 0.00230 | 0.63692 | 943.1 | 9.8 | 929.0 | 13.0 | 942 | 25 | 942.0 | 25.0 | 1.4 | Single Age |
| DGH01_31 | 212 | 2.41 | 1.73500 | 0.02200 | 0.17270 | 0.00220 | 0.51363 | 1020.8 | 8.2 | 1027.0 | 12.0 | 1002 | 28 | 1002.0 | 28.0 | 2.5 | Single Age |
| DGH01_32 | 1203 | 6.69 | 2.53200 | 0.06900 | 0.21740 | 0.00610 | 0.88856 | 1280.0 | 20.0 | 1268.0 | 32.0 | 1313 | 24 | 1313.0 | 24.0 | 3.4 | Single Age |
| DGH01_33 | 1150 | 1.37 | 1.49600 | 0.02400 | 0.15380 | 0.00280 | 0.50590 | 928.5 | 9.7 | 922.0 | 16.0 | 945 | 36 | 945.0 | 36.0 | 2.4 | Single Age |
| DGH01_34 | 760 | 0.51 | 1.53100 | 0.03400 | 0.15710 | 0.00420 | 0.87704 | 942.0 | 14.0 | 940.0 | 24.0 | 949 | 23 | 949.0 | 23.0 | 0.9 | Single Age |
| DGH01_35 | 947 | 1.37 | 2.17200 | 0.07000 | 0.19980 | 0.00630 | 0.84009 | 1171.0 | 22.0 | 1174.0 | 34.0 | 1145 | 39 | 1145.0 | 39.0 | 2.5 | Single Age |
| DGH01_36 | 310 | 1.58 | 4.46400 | 0.05500 | 0.30850 | 0.00450 | 0.57382 | 1724.0 | 10.0 | 1733.0 | 22.0 | 1717 | 22 | 1717.0 | 22.0 | 0.9 | Single Age |
| DGH01_37 | 260 | 0.81 | 4.50700 | 0.05300 | 0.30890 | 0.00420 | 0.73722 | 1731.3 | 9.8 | 1737.0 | 21.0 | 1723 | 17 | 1723.0 | 17.0 | 0.8 | Single Age |
| DGH01_38 | 124.2 | 0.48 | 10.64000 | 0.10000 | 0.46920 | 0.00430 | 0.57579 | 2491.9 | 8.7 | 2480.0 | 19.0 | 2499 | 15 | 2499.0 | 15.0 | 0.8 | Single Age |
| DGH01_39 | 91 | 1.04 | 2.56200 | 0.04800 | 0.21740 | 0.00330 | 0.56188 | 1290.0 | 13.0 | 1268.0 | 17.0 | 1317 | 30 | 1317.0 | 30.0 | 3.7 | Single Age |
| DGH01_40 | 288 | 1.47 | 4.45100 | 0.05900 | 0.30360 | 0.00430 | 0.60814 | 1721.0 | 11.0 | 1708.0 | 21.0 | 1727 | 18 | 1727.0 | 18.0 | 1.1 | Single Age |
| DGH01_41 | 205.6 | 0.40 | 1.51000 | 0.02700 | 0.15020 | 0.00250 | 0.63038 | 934.0 | 11.0 | 902.0 | 14.0 | 1027 | 31 | 1027.0 | 31.0 | 12.2 | Single Age |
| DGH01_42 | 167.9 | 1.12 | 2.08900 | 0.04200 | 0.19200 | 0.00330 | 0.42874 | 1144.0 | 14.0 | 1132.0 | 18.0 | 1133 | 33 | 1133.0 | 33.0 | 0.1 | Single Age |
| DGH01_43 | 527 | 1.36 | 3.11100 | 0.03600 | 0.25010 | 0.00340 | 0.78661 | 1434.6 | 8.8 | 1438.0 | 17.0 | 1421 | 15 | 1421.0 | 15.0 | 1.2 | Single Age |
| DGH01_44 | 356 | 1.24 | 3.88700 | 0.06300 | 0.28200 | 0.00460 | 0.69545 | 1612.0 | 13.0 | 1601.0 | 23.0 | 1613 | 27 | 1613.0 | 27.0 | 0.7 | Single Age |
| DGH01_45 | 271 | 0.88 | 10.93000 | 0.16000 | 0.47600 | 0.00870 | 0.66454 | 2520.0 | 12.0 | 2509.0 | 38.0 | 2524 | 25 | 2524.0 | 25.0 | 0.6 | Single Age |
| DGH01_46 | 342 | 2.59 | 2.07100 | 0.02500 | 0.18940 | 0.00280 | 0.75753 | 1141.0 | 8.4 | 1118.0 | 15.0 | 1171 | 22 | 1171.0 | 22.0 | 4.5 | Single Age |
| DGH01_47 | 575 | 1.40 | 13.00000 | 0.21000 | 0.51400 | 0.01000 | 0.82815 | 2679.0 | 15.0 | 2671.0 | 44.0 | 2669 | 19 | 2669.0 | 19.0 | 0.1 | Single Age |
| DGH01_48 | 321 | 10.01 | 6.85700 | 0.07200 | 0.38580 | 0.00440 | 0.74562 | 2092.3 | 9.2 | 2103.0 | 21.0 | 2080 | 15 | 2080.0 | 15.0 | 1.1 | Single Age |

Table 3 Outer Lesser Himalaya zircon U-Pb Results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DGH01_49 | 66.5 | 0.58 | 2.59900 | 0.07000 | 0.21580 | 0.00460 | 0.33503 | 1301.0 | 20.0 | 1259.0 | 25.0 | 1382 | 52 | 1382.0 | 52.0 | 8.9 | Single Age |
| DGH01_50 | 408 | 1.28 | 1.62800 | 0.02000 | 0.16170 | 0.00220 | 0.59717 | 980.4 | 7.6 | 967.0 | 12.0 | 995 | 23 | 995.0 | 23.0 | 2.8 | Single Age |
| DGH01_51 | 209 | 1.65 | 4.08100 | 0.08000 | 0.28300 | 0.00590 | 0.83798 | 1650.0 | 16.0 | 1605.0 | 30.0 | 1698 | 22 | 1698.0 | 22.0 | 5.5 | Single Age |
| DGH01_52 | 247 | 1.18 | 4.46900 | 0.06800 | 0.30630 | 0.00480 | 0.62088 | 1724.0 | 13.0 | 1722.0 | 24.0 | 1728 | 23 | 1728.0 | 23.0 | 0.3 | Single Age |
| DGH01_53 | 970 | 2.61 | 1.52800 | 0.02300 | 0.15610 | 0.00310 | 0.75483 | 941.3 | 9.1 | 935.0 | 17.0 | 967 | 24 | 967.0 | 24.0 | 3.3 | Single Age |
| DGH01_54 | 382 | 0.60 | 1.53000 | 0.02200 | 0.15760 | 0.00220 | 0.71161 | 942.7 | 9.1 | 943.0 | 12.0 | 933 | 22 | 933.0 | 22.0 | 1.1 | Single Age |
| DGH01_55 | 69.4 | 1.22 | 2.22000 | 0.04900 | 0.19730 | 0.00430 | 0.50194 | 1189.0 | 15.0 | 1160.0 | 23.0 | 1236 | 42 | 1236.0 | 42.0 | 6.1 | Single Age |
| DGH01_56 | 296 | 1.22 | 4.49700 | 0.06100 | 0.30670 | 0.00430 | 0.72538 | 1729.0 | 11.0 | 1724.0 | 21.0 | 1737 | 21 | 1737.0 | 21.0 | 0.7 | Single Age |
| DGH01_57 | 1306 | 3.83 | 1.53700 | 0.03000 | 0.15840 | 0.00410 | 0.72202 | 945.0 | 12.0 | 947.0 | 23.0 | 949 | 36 | 949.0 | 36.0 | 0.2 | Single Age |
| DGH01_58 | 263 | 0.50 | 1.47300 | 0.02600 | 0.15290 | 0.00250 | 0.66948 | 922.0 | 11.0 | 917.0 | 14.0 | 946 | 30 | 946.0 | 30.0 | 3.1 | Single Age |
| DGH01_59 | 386 | 0.56 | 1.59200 | 0.02900 | 0.15130 | 0.00250 | 0.70133 | 968.0 | 12.0 | 908.0 | 14.0 | 1099 | 27 | 1099.0 | 27.0 | 17.4 | Single Age |
| DGH01_60 | 1231 | 1.75 | 1.44400 | 0.01600 | 0.15040 | 0.00210 | 0.75118 | 907.7 | 6.5 | 903.0 | 12.0 | 922 | 19 | 922.0 | 19.0 | 2.1 | Single Age |
| DGH01_61 | 311 | 0.73 | 1.55300 | 0.02000 | 0.15970 | 0.00160 | 0.28573 | 951.1 | 7.8 | 956.0 | 8.6 | 945 | 26 | 945.0 | 26.0 | 1.2 | Single Age |
| DGH01_62 | 855 | 1.86 | 4.39100 | 0.04600 | 0.30280 | 0.00360 | 0.77089 | 1712.0 | 8.8 | 1705.0 | 18.0 | 1728 | 14 | 1728.0 | 14.0 | 1.3 | Single Age |
| DGH01_63 | 365 | 1.10 | 6.86800 | 0.05700 | 0.38260 | 0.00360 | 0.75661 | 2094.1 | 7.4 | 2088.0 | 17.0 | 2107 | 11 | 2107.0 | 11.0 | 0.9 | Single Age |
| DGH01_64 | 358 | 0.86 | 3.15500 | 0.03300 | 0.25570 | 0.00310 | 0.62593 | 1445.6 | 8.1 | 1468.0 | 16.0 | 1439 | 20 | 1439.0 | 20.0 | 2.0 | Single Age |
| DGH01_65 | 276 | 1.63 | 4.37000 | 0.04800 | 0.30240 | 0.00330 | 0.67511 | 1706.0 | 9.1 | 1703.0 | 16.0 | 1719 | 16 | 1719.0 | 16.0 | 0.9 | Single Age |
| DGH01_66 | 777 | 0.95 | 2.75100 | 0.05500 | 0.22900 | 0.00560 | 0.83224 | 1342.0 | 15.0 | 1329.0 | 30.0 | 1371 | 29 | 1371.0 | 29.0 | 3.1 | Single Age |
| DGH01_67 | 231 | 1.11 | 10.43000 | 0.17000 | 0.45870 | 0.00720 | 0.84097 | 2474.0 | 14.0 | 2432.0 | 32.0 | 2530 | 15 | 2530.0 | 15.0 | 3.9 | Single Age |
| DGH01_68 | 260 | 1.25 | 2.87700 | 0.05200 | 0.23980 | 0.00460 | 0.66245 | 1376.0 | 14.0 | 1385.0 | 24.0 | 1352 | 31 | 1352.0 | 31.0 | 2.4 | Single Age |
| DGH01_69 | 284 | 1.58 | 2.07900 | 0.02800 | 0.18890 | 0.00230 | 0.65791 | 1142.7 | 8.8 | 1115.0 | 12.0 | 1208 | 21 | 1208.0 | 21.0 | 7.7 | Single Age |
| DGH01_70 | 738 | 1.84 | 1.48300 | 0.02100 | 0.15250 | 0.00200 | 0.80042 | 922.6 | 8.6 | 915.0 | 11.0 | 965 | 19 | 965.0 | 19.0 | 5.2 | Single Age |
| DGH01_71 | 97.2 | 1.25 | 2.69500 | 0.05500 | 0.21800 | 0.00480 | 0.57388 | 1325.0 | 15.0 | 1270.0 | 25.0 | 1439 | 38 | 1439.0 | 38.0 | 11.7 | Single Age |
| DGH01_72 | 627 | 2.81 | 3.79200 | 0.04800 | 0.27770 | 0.00370 | 0.82122 | 1590.0 | 10.0 | 1579.0 | 19.0 | 1621 | 16 | 1621.0 | 16.0 | 2.6 | Single Age |
| DGH01_73 | 138 | 2.64 | 6.00200 | 0.09500 | 0.35940 | 0.00660 | 0.74679 | 1974.0 | 14.0 | 1978.0 | 31.0 | 1983 | 21 | 1983.0 | 21.0 | 0.3 | Single Age |
| DGH01_74 | 309.6 | 0.96 | 4.10900 | 0.06000 | 0.30150 | 0.00450 | 0.70897 | 1655.0 | 12.0 | 1698.0 | 22.0 | 1602 | 21 | 1602.0 | 21.0 | 6.0 | Single Age |
| DGH01_75 | 299 | 1.70 | 1.51900 | 0.01600 | 0.15600 | 0.00170 | 0.58391 | 939.6 | 6.9 | 934.4 | 9.7 | 974 | 18 | 974.0 | 18.0 | 4.1 | Single Age |
| DGH01_76 | 1378 | 8.20 | 1.62000 | 0.06500 | 0.16120 | 0.00460 | 0.85703 | 977.0 | 25.0 | 963.0 | 25.0 | 1024 | 43 | 1024.0 | 43.0 | 6.0 | Rim |
| DGH01_76 | 662 | 1.22 | 3.76200 | 0.03500 | 0.27620 | 0.00280 | 0.50745 | 1585.9 | 7.2 | 1572.0 | 14.0 | 1606 | 18 | 1606.0 | 18.0 | 2.1 | Core |
| DGH01_77 | 620 | 3.09 | 1.60700 | 0.04000 | 0.14890 | 0.00280 | 0.50933 | 972.0 | 16.0 | 894.0 | 15.0 | 1170 | 51 | 1170.0 | 51.0 | 23.6 | Single Age |
| DGH01_78 | 228 | 1.40 | 29.27000 | 0.69000 | 0.71300 | 0.01200 | 0.85852 | 3466.0 | 23.0 | 3467.0 | 47.0 | 3448 | 20 | 3448.0 | 20.0 | 0.6 | Single Age |
| DGH01_79 | 183 | 1.52 | 2.10500 | 0.02100 | 0.19540 | 0.00210 | 0.58135 | 1151.0 | 7.1 | 1150.0 | 12.0 | 1161 | 19 | 1161.0 | 19.0 | 0.9 | Single Age |
| DGH01_80 | 289 | 1.81 | 4.52000 | 0.06700 | 0.31060 | 0.00570 | 0.77015 | 1736.0 | 12.0 | 1742.0 | 28.0 | 1712 | 21 | 1712.0 | 21.0 | 1.8 | Single Age |
| DGH01_81 | 287 | 1.13 | 3.82100 | 0.04900 | 0.26760 | 0.00340 | 0.72954 | 1598.0 | 10.0 | 1528.0 | 17.0 | 1692 | 16 | 1692.0 | 16.0 | 9.7 | Single Age |
| DGH01_82 | 289 | 1.28 | 4.56400 | 0.05500 | 0.31100 | 0.00400 | 0.73920 | 1744.2 | 9.7 | 1745.0 | 20.0 | 1726 | 17 | 1726.0 | 17.0 | 1.1 | Single Age |
| DGH01_83 | 253.4 | 1.85 | 15.09000 | 0.46000 | 0.53600 | 0.01800 | 0.85161 | 2824.0 | 28.0 | 2766.0 | 74.0 | 2843 | 27 | 2843.0 | 27.0 | 2.7 | Single Age |
| DGH01_84 | 320 | 0.78 | 1.51800 | 0.01600 | 0.15480 | 0.00180 | 0.56388 | 937.3 | 6.6 | 927.0 | 10.0 | 959 | 22 | 959.0 | 22.0 | 3.3 | Single Age |
| DGH01_85 | 86.6 | 0.38 | 1.53500 | 0.03000 | 0.15020 | 0.00290 | 0.51081 | 943.0 | 12.0 | 902.0 | 16.0 | 1045 | 41 | 1045.0 | 41.0 | 13.7 | Single Age |
| DGH01_86 | 388.5 | 1.79 | 4.13900 | 0.06600 | 0.28480 | 0.00580 | 0.83801 | 1661.0 | 13.0 | 1615.0 | 29.0 | 1720 | 24 | 1720.0 | 24.0 | 6.1 | Single Age |
| DGH01_87 | 25.9 | 1.75 | 2.30200 | 0.06700 | 0.21210 | 0.00450 | 0.20192 | 1215.0 | 20.0 | 1239.0 | 24.0 | 1187 | 59 | 1187.0 | 59.0 | 4.4 | Single Age |
| DGH01_88 | 253 | 0.22 | 1.59400 | 0.02500 | 0.16050 | 0.00230 | 0.56311 | 968.9 | 9.9 | 959.0 | 13.0 | 975 | 30 | 975.0 | 30.0 | 1.6 | Single Age |
| DGH01_89 | 1064 | 1.77 | 1.52200 | 0.01700 | 0.15660 | 0.00190 | 0.74491 | 939.8 | 6.7 | 939.0 | 11.0 | 942 | 17 | 942.0 | 17.0 | 0.3 | Single Age |

Table 3 Outer Lesser Himalaya zircon U-Pb Results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DGH01_90 | 564 | 3.78 | 3.70800 | 0.04200 | 0.27430 | 0.00350 | 0.72466 | 1573.8 | 9.3 | 1562.0 | 18.0 | 1593 | 16 | 1593.0 | 16.0 | 1.9 | Single Age |
| DGH01_91 | 271 | 1.40 | 19.97000 | 0.29000 | 0.59600 | 0.01000 | 0.82148 | 3088.0 | 14.0 | 3011.0 | 40.0 | 3132 | 16 | 3132.0 | 16.0 | 3.9 | Single Age |
| DGH01_92 | 235.7 | 0.81 | 2.99500 | 0.03500 | 0.23720 | 0.00360 | 0.73136 | 1406.9 | 8.6 | 1372.0 | 19.0 | 1452 | 21 | 1452.0 | 21.0 | 5.5 | Single Age |
| DGH01_93 | 326 | 1.23 | 4.62000 | 0.15000 | 0.30970 | 0.00600 | 0.65401 | 1750.0 | 25.0 | 1738.0 | 29.0 | 1755 | 47 | 1755.0 | 47.0 | 1.0 | Single Age |
| DGH01_94 | 182 | 0.76 | 4.47400 | 0.06000 | 0.30360 | 0.00420 | 0.71413 | 1725.0 | 11.0 | 1708.0 | 21.0 | 1724 | 19 | 1724.0 | 19.0 | 0.9 | Single Age |
| DGH01_95 | 581 | 1.32 | 4.01300 | 0.05100 | 0.28850 | 0.00420 | 0.77338 | 1636.0 | 10.0 | 1634.0 | 21.0 | 1636 | 16 | 1636.0 | 16.0 | 0.1 | Single Age |
| DGH01_96 | 324.5 | 2.41 | 4.44500 | 0.03500 | 0.30410 | 0.00240 | 0.69554 | 1720.4 | 6.5 | 1711.0 | 12.0 | 1724 | 11 | 1724.0 | 11.0 | 0.8 | Single Age |
| DGH01_97 | 354 | 2.80 | 10.83000 | 0.15000 | 0.47660 | 0.00780 | 0.85175 | 2508.0 | 13.0 | 2511.0 | 34.0 | 2498 | 13 | 2498.0 | 13.0 | 0.5 | Single Age |
| DGH01_98 | 310 | 1.40 | 2.09600 | 0.03500 | 0.19440 | 0.00350 | 0.74763 | 1148.0 | 11.0 | 1144.0 | 19.0 | 1140 | 27 | 1140.0 | 27.0 | 0.4 | Single Age |
| DGH01_99 | 845 | 3.06 | 5.35000 | 0.08600 | 0.33570 | 0.00550 | 0.89343 | 1875.0 | 14.0 | 1869.0 | 28.0 | 1867 | 17 | 1867.0 | 17.0 | 0.1 | Single Age |
| DGH01_100 | 383 | 1.51 | 1.50100 | 0.02100 | 0.15220 | 0.00230 | 0.71346 | 931.2 | 8.4 | 913.0 | 13.0 | 967 | 22 | 967.0 | 22.0 | 5.6 | Single Age |
| DGH01_101 | 79.4 | 1.95 | 2.94900 | 0.03700 | 0.24480 | 0.00320 | 0.46178 | 1395.2 | 9.6 | 1411.0 | 17.0 | 1367 | 27 | 1367.0 | 27.0 | 3.2 | Single Age |
| DGH01_102 | 109.6 | 2.39 | 1.88400 | 0.02900 | 0.18050 | 0.00250 | 0.59540 | 1076.0 | 10.0 | 1069.0 | 14.0 | 1078 | 29 | 1078.0 | 29.0 | 0.8 | Single Age |
| DGH01_103 | 274 | 1.50 | 4.46300 | 0.06400 | 0.30730 | 0.00420 | 0.82121 | 1723.0 | 12.0 | 1727.0 | 21.0 | 1706 | 15 | 1706.0 | 15.0 | 1.2 | Single Age |
| DGH01_104 | 817 | 0.83 | 1.55900 | 0.02000 | 0.16020 | 0.00250 | 0.77547 | 953.6 | 8.0 | 958.0 | 14.0 | 938 | 20 | 938.0 | 20.0 | 2.1 | Single Age |
| DGH01_105 | 451 | 1.40 | 4.46100 | 0.07200 | 0.30290 | 0.00520 | 0.65988 | 1723.0 | 13.0 | 1705.0 | 26.0 | 1738 | 21 | 1738.0 | 21.0 | 1.9 | Single Age |
| DGH01_106 | 94.3 | 1.00 | 3.27400 | 0.04500 | 0.25640 | 0.00330 | 0.23971 | 1476.0 | 11.0 | 1471.0 | 17.0 | 1488 | 28 | 1488.0 | 28.0 | 1.1 | Single Age |
| DGH01_107 | 900 | 3.05 | 1.57100 | 0.02300 | 0.16120 | 0.00280 | 0.73420 | 957.9 | 9.0 | 963.0 | 16.0 | 957 | 22 | 957.0 | 22.0 | 0.6 | Single Age |
| DGH01_108 | 234 | 1.73 | 2.09900 | 0.02600 | 0.19410 | 0.00200 | 0.63223 | 1148.9 | 8.4 | 1143.0 | 11.0 | 1158 | 21 | 1158.0 | 21.0 | 1.3 | Single Age |
| DGH01_109 | 379 | 1.27 | 2.58700 | 0.02800 | 0.22180 | 0.00300 | 0.71349 | 1296.5 | 7.8 | 1291.0 | 16.0 | 1295 | 16 | 1295.0 | 16.0 | 0.3 | Single Age |
| DGH01_110 | 247.5 | 0.39 | 1.52600 | 0.02400 | 0.15580 | 0.00190 | 0.51638 | 940.0 | 9.5 | 935.0 | 11.0 | 949 | 27 | 949.0 | 27.0 | 1.5 | Single Age |
| DGH01_111 | 191 | 0.59 | 2.16800 | 0.03600 | 0.19800 | 0.00370 | 0.68655 | 1170.0 | 11.0 | 1164.0 | 20.0 | 1188 | 28 | 1188.0 | 28.0 | 2.0 | Single Age |
| DGH01_113 | 269 | 1.98 | 4.65900 | 0.05600 | 0.31840 | 0.00690 | 0.55860 | 1760.0 | 10.0 | 1781.0 | 34.0 | 1708 | 31 | 1708.0 | 31.0 | 4.3 | Single Age |
| DGH01_114 | 132.6 | 0.55 | 1.51000 | 0.03400 | 0.15370 | 0.00270 | 0.46096 | 934.0 | 14.0 | 922.0 | 15.0 | 957 | 41 | 957.0 | 41.0 | 3.7 | Single Age |
| DGH01_115 | 120.1 | 0.51 | 1.52500 | 0.02900 | 0.15570 | 0.00210 | 0.02777 | 939.0 | 12.0 | 933.0 | 12.0 | 947 | 40 | 947.0 | 40.0 | 1.5 | Single Age |
| DGH01_117 | 368 | 1.55 | 4.42600 | 0.05400 | 0.30340 | 0.00370 | 0.64274 | 1716.0 | 10.0 | 1710.0 | 19.0 | 1730 | 17 | 1730.0 | 17.0 | 1.2 | Single Age |
| DGH01_118 | 40.6 | 0.51 | 3.73300 | 0.09700 | 0.27320 | 0.00550 | 0.34525 | 1576.0 | 21.0 | 1556.0 | 28.0 | 1611 | 46 | 1611.0 | 46.0 | 3.4 | Single Age |
| DGH01_119 | 45.1 | 0.45 | 10.28000 | 0.14000 | 0.46220 | 0.00700 | 0.67831 | 2459.0 | 13.0 | 2448.0 | 31.0 | 2480 | 18 | 2480.0 | 18.0 | 1.3 | Single Age |
| DGH01_120 | 371 | 0.93 | 4.03100 | 0.07400 | 0.29120 | 0.00600 | 0.74378 | 1639.0 | 15.0 | 1647.0 | 30.0 | 1633 | 29 | 1633.0 | 29.0 | 0.9 | Single Age |
| STJ05_1 | 139 | 1.28 | 1.32800 | 0.01300 | 0.14300 | 0.00120 | 0.38072 | 857.5 | 5.7 | 861.4 | 6.5 | 837 | 23 | 837.0 | 6.5 | 0.5 | Single Age |
| STJ05_2 | 143 | 0.90 | 3.71300 | 0.04000 | 0.27510 | 0.00350 | 0.71702 | 1573.5 | 8.6 | 1566.0 | 18.0 | 1577 | 16 | 1577.0 | 16.0 | 0.7 | Single Age |
| STJ05_3 | 327 | 2.47 | 5.22900 | 0.09400 | 0.33380 | 0.00740 | 0.63029 | 1857.0 | 15.0 | 1856.0 | 36.0 | 1864 | 36 | 1864.0 | 36.0 | 0.4 | Single Age |
| STJ05_4 | 125 | 0.96 | 1.22000 | 0.02100 | 0.13330 | 0.00170 | 0.58311 | 808.9 | 9.8 | 806.4 | 9.8 | 833 | 32 | 806.4 | 9.8 | 0.3 | Single Age |
| STJ05_5 | 101.9 | 1.97 | 1.22400 | 0.01600 | 0.13390 | 0.00200 | 0.58761 | 811.2 | 7.5 | 811.0 | 11.0 | 801 | 28 | 811.0 | 11.0 | 0.0 | Single Age |
| STJ05_6 | 61.7 | 0.72 | 2.35000 | 0.02700 | 0.21010 | 0.00220 | 0.33543 | 1228.9 | 8.3 | 1229.0 | 11.0 | 1227 | 23 | 1227.0 | 23.0 | 0.2 | Single Age |
| STJ05_7 | 57.5 | 0.88 | 2.14000 | 0.05300 | 0.19520 | 0.00190 | 0.44574 | 1154.0 | 13.0 | 1149.0 | 10.0 | 1167 | 33 | 1167.0 | 33.0 | 1.5 | Single Age |
| STJ05_8 | 284 | 1.70 | 1.14500 | 0.03000 | 0.12800 | 0.00310 | 0.83795 | 774.0 | 14.0 | 776.0 | 18.0 | 773 | 29 | 776.0 | 18.0 | 0.3 | Single Age |
| STJ05_9 | 152 | 1.47 | 2.29400 | 0.03000 | 0.20410 | 0.00210 | 0.37811 | 1210.2 | 9.2 | 1197.0 | 11.0 | 1220 | 24 | 1220.0 | 24.0 | 1.9 | Single Age |
| STJ05_10 | 65.2 | 0.79 | 3.26700 | 0.06400 | 0.25390 | 0.00370 | 0.37555 | 1472.0 | 15.0 | 1458.0 | 19.0 | 1497 | 32 | 1497.0 | 32.0 | 2.6 | Single Age |
| STJ05_11 | 107.6 | 1.21 | 2.75500 | 0.03000 | 0.23080 | 0.00170 | 0.32271 | 1341.2 | 7.6 | 1338.6 | 9.1 | 1342 | 18 | 1342.0 | 18.0 | 0.3 | Single Age |
| STJ05_12 | 57.9 | 0.40 | 2.61600 | 0.05100 | 0.22400 | 0.00380 | 0.32809 | 1305.0 | 14.0 | 1303.0 | 20.0 | 1324 | 37 | 1324.0 | 37.0 | 1.6 | Single Age |
| STJ05_13 | 64.7 | 0.93 | 1.37100 | 0.02200 | 0.14640 | 0.00150 | 0.53017 | 876.9 | 9.3 | 880.4 | 8.6 | 870 | 27 | 870.0 | 27.0 | 1.2 | Single Age |

Table 3 Outer Lesser Himalaya zircon U-Pb Results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STJ05_14 | 194.8 | 2.28 | 6.08200 | 0.08800 | 0.35860 | 0.00510 | 0.84645 | 1987.0 | 13.0 | 1975.0 | 24.0 | 1993 | 20 | 1993.0 | 20.0 | 0.9 | Single Age |
| STJ05_15 | 111 | 1.00 | 1.42200 | 0.01600 | 0.15110 | 0.00200 | 0.48118 | 897.9 | 6.8 | 907.0 | 11.0 | 864 | 25 | 864.0 | 25.0 | 5.0 | Single Age |
| STJ05_16 | 187.5 | 1.29 | 5.19400 | 0.06100 | 0.33290 | 0.00490 | 0.61286 | 1851.0 | 10.0 | 1852.0 | 24.0 | 1857 | 21 | 1857.0 | 21.0 | 0.3 | Single Age |
| STJ05_17 | 276 | 0.56 | 3.08400 | 0.02000 | 0.24940 | 0.00170 | 0.57980 | 1428.4 | 5.0 | 1435.2 | 8.9 | 1414 | 12 | 1414.0 | 12.0 | 1.5 | Single Age |
| STJ05_18 | 262 | 0.90 | 1.19100 | 0.01000 | 0.13236 | 0.00092 | 0.40477 | 796.0 | 4.8 | 801.3 | 5.2 | 776 | 18 | 801.3 | 5.2 | 0.7 | Single Age |
| STJ05_19 | 78 | 9.00 | 10.42000 | 0.12000 | 0.45990 | 0.00500 | 0.68295 | 2472.0 | 10.0 | 2438.0 | 22.0 | 2494 | 16 | 2494.0 | 16.0 | 2.2 | Single Age |
| STJ05_20 | 87.5 | 0.97 | 3.81000 | 0.03700 | 0.27950 | 0.00260 | 0.42384 | 1594.2 | 7.7 | 1589.0 | 13.0 | 1595 | 18 | 1595.0 | 18.0 | 0.4 | Single Age |
| STJ05_21 | 45.6 | 0.81 | 1.28100 | 0.02600 | 0.13910 | 0.00230 | 0.35773 | 836.0 | 12.0 | 839.0 | 13.0 | 833 | 39 | 839.0 | 13.0 | 0.4 | Single Age |
| STJ05_22 | 120.8 | 1.10 | 1.21400 | 0.01600 | 0.13320 | 0.00130 | 0.41433 | 806.4 | 7.2 | 806.2 | 7.2 | 794 | 25 | 806.2 | 7.2 | 0.0 | Single Age |
| STJ05_23 | 384 | 0.58 | 1.10200 | 0.01300 | 0.12440 | 0.00130 | 0.75454 | 753.9 | 6.1 | 756.0 | 7.5 | 760 | 18 | 756.0 | 7.5 | 0.3 | Single Age |
| STJ05_24 | 58.3 | 0.81 | 1.40600 | 0.02900 | 0.14180 | 0.00160 | 0.36227 | 890.0 | 12.0 | 854.8 | 8.8 | 972 | 45 | 972.0 | 45.0 | 12.1 | Single Age |
| STJ05_25 | 32.4 | 0.29 | 15.11000 | 0.18000 | 0.55370 | 0.00710 | 0.75196 | 2824.0 | 12.0 | 2840.0 | 29.0 | 2804 | 14 | 2804.0 | 14.0 | 1.3 | Single Age |
| STJ05_26 | 153.7 | 0.76 | 1.12600 | 0.01200 | 0.12550 | 0.00100 | 0.46955 | 765.7 | 5.7 | 762.1 | 5.8 | 762 | 21 | 762.1 | 5.8 | 0.5 | Single Age |
| STJ05_27 | 166.5 | 0.89 | 10.76900 | 0.09200 | 0.46050 | 0.00360 | 0.65045 | 2504.4 | 8.2 | 2442.0 | 16.0 | 2560 | 11 | 2560.0 | 11.0 | 4.6 | Single Age |
| STJ05_28 | 81 | 1.05 | 1.19600 | 0.02300 | 0.13210 | 0.00200 | 0.41120 | 799.0 | 11.0 | 802.0 | 11.0 | 804 | 35 | 802.0 | 11.0 | 0.4 | Single Age |
| STJ05_29 | 176.1 | 1.23 | 3.10200 | 0.02300 | 0.24860 | 0.00220 | 0.64011 | 1433.6 | 5.7 | 1431.0 | 11.0 | 1426 | 14 | 1426.0 | 14.0 | 0.4 | Single Age |
| STJ05_30 | 236.3 | 0.95 | 1.13000 | 0.01100 | 0.12610 | 0.00110 | 0.56846 | 767.5 | 5.1 | 765.7 | 6.1 | 764 | 19 | 765.7 | 6.1 | 0.2 | Single Age |
| STJ05_31 | 82.8 | 0.71 | 3.95000 | 0.05300 | 0.28480 | 0.00220 | 0.49674 | 1624.0 | 11.0 | 1615.0 | 11.0 | 1639 | 21 | 1639.0 | 21.0 | 1.5 | Single Age |
| STJ05_32 | 101.1 | 1.30 | 1.12100 | 0.01300 | 0.12510 | 0.00120 | 0.33618 | 764.0 | 6.1 | 760.0 | 6.6 | 782 | 29 | 760.0 | 6.6 | 0.5 | Single Age |
| STJ05_33 | 291 | 1.34 | 5.67000 | 0.03600 | 0.34610 | 0.00250 | 0.73760 | 1926.5 | 5.4 | 1916.0 | 12.0 | 1931 | 8 | 1931.4 | 8.3 | 0.8 | Single Age |
| STJ05_34 | 33.8 | 1.16 | 2.82700 | 0.03600 | 0.23310 | 0.00230 | 0.30411 | 1361.9 | 9.6 | 1350.0 | 12.0 | 1367 | 27 | 1367.0 | 27.0 | 1.2 | Single Age |
| STJ05_35 | 27.2 | 0.48 | 1.08400 | 0.03000 | 0.11990 | 0.00260 | 0.23125 | 744.0 | 15.0 | 730.0 | 15.0 | 827 | 72 | 730.0 | 15.0 | 1.9 | Single Age |
| STJ05_36 | 174 | 1.32 | 1.28000 | 0.03200 | 0.13710 | 0.00250 | 0.80553 | 836.0 | 14.0 | 828.0 | 14.0 | 868 | 29 | 828.0 | 14.0 | 1.0 | Single Age |
| STJ05_37 | 33.6 | 1.06 | 10.05000 | 0.14000 | 0.45660 | 0.00590 | 0.61424 | 2441.0 | 12.0 | 2424.0 | 26.0 | 2455 | 17 | 2455.0 | 17.0 | 1.3 | Single Age |
| STJ05_38 | 25.4 | 1.23 | 1.18500 | 0.04000 | 0.12860 | 0.00330 | 0.26741 | 792.0 | 19.0 | 783.0 | 19.0 | 851 | 72 | 783.0 | 19.0 | 1.1 | Single Age |
| STJ05_39 | 132.3 | 1.44 | 1.28500 | 0.01400 | 0.13790 | 0.00110 | 0.39319 | 838.9 | 6.0 | 832.4 | 6.5 | 851 | 23 | 832.4 | 6.5 | 0.8 | Single Age |
| STJ05_40 | 57.1 | 0.97 | 1.42400 | 0.04900 | 0.14740 | 0.00200 | 0.22779 | 897.0 | 19.0 | 888.0 | 11.0 | 918 | 69 | 918.0 | 69.0 | 3.3 | Single Age |
| STJ05_41 | 163.7 | 0.82 | 1.13200 | 0.01400 | 0.12730 | 0.00120 | 0.39510 | 768.4 | 6.7 | 772.1 | 7.1 | 756 | 26 | 772.1 | 7.1 | 0.5 | Single Age |
| STJ05_42 | 177 | 2.56 | 5.74300 | 0.04400 | 0.34890 | 0.00370 | 0.79427 | 1937.7 | 6.6 | 1929.0 | 18.0 | 1954 | 12 | 1954.0 | 12.0 | 1.3 | Single Age |
| STJ05_43 | 127.3 | 1.10 | 2.23700 | 0.02800 | 0.20470 | 0.00240 | 0.29932 | 1192.2 | 8.8 | 1201.0 | 13.0 | 1170 | 26 | 1170.0 | 26.0 | 2.6 | Single Age |
| STJ05_44 | 100 | 0.74 | 1.45900 | 0.01400 | 0.15090 | 0.00130 | 0.28755 | 913.1 | 5.9 | 906.0 | 7.1 | 936 | 22 | 936.0 | 22.0 | 3.2 | Single Age |
| STJ05_45 | 238.6 | 0.65 | 5.20800 | 0.06100 | 0.33050 | 0.00340 | 0.66873 | 1854.0 | 10.0 | 1841.0 | 17.0 | 1863 | 20 | 1863.0 | 20.0 | 1.2 | Single Age |
| STJ05_46 | 49.5 | 0.60 | 3.72100 | 0.04000 | 0.27570 | 0.00320 | 0.34316 | 1576.2 | 8.7 | 1569.0 | 16.0 | 1565 | 25 | 1565.0 | 25.0 | 0.3 | Single Age |
| STJ05_47 | 276 | 1.19 | 1.12600 | 0.02900 | 0.12440 | 0.00230 | 0.68015 | 765.0 | 14.0 | 756.0 | 13.0 | 831 | 50 | 756.0 | 13.0 | 1.2 | Single Age |
| STJ05_48 | 42.4 | 0.64 | 1.14700 | 0.02800 | 0.12470 | 0.00200 | 0.28093 | 776.0 | 13.0 | 758.0 | 12.0 | 841 | 52 | 758.0 | 12.0 | 2.3 | Single Age |
| STJ05_49 | 120.2 | 0.65 | 6.69300 | 0.07000 | 0.37730 | 0.00450 | 0.70345 | 2073.0 | 8.9 | 2063.0 | 21.0 | 2084 | 15 | 2084.0 | 15.0 | 1.0 | Single Age |
| STJ05_50 | 183 | 0.65 | 3.43000 | 0.02900 | 0.26100 | 0.00220 | 0.65161 | 1511.7 | 6.5 | 1495.0 | 11.0 | 1535 | 13 | 1535.0 | 13.0 | 2.6 | Single Age |
| STJ05_51 | 34.5 | 0.53 | 1.15300 | 0.02400 | 0.12300 | 0.00160 | 0.32065 | 779.0 | 11.0 | 749.1 | 9.2 | 863 | 42 | 749.1 | 9.2 | 3.8 | Single Age |
| STJ05_52 | 45 | 5.70 | 2.91000 | 0.03300 | 0.23810 | 0.00210 | 0.35461 | 1383.9 | 8.6 | 1377.0 | 11.0 | 1405 | 22 | 1405.0 | 22.0 | 2.0 | Single Age |
| STJ05_53 | 30.2 | 0.77 | 1.63600 | 0.03300 | 0.16360 | 0.00240 | 0.38377 | 985.0 | 13.0 | 976.0 | 13.0 | 1005 | 38 | 1005.0 | 38.0 | 2.9 | Single Age |
| STJ05_54 | 127.2 | 0.64 | 1.12600 | 0.01300 | 0.12370 | 0.00110 | 0.37856 | 765.3 | 6.1 | 751.7 | 6.4 | 796 | 24 | 751.7 | 6.4 | 1.8 | Single Age |
| STJ05_55 | 62.5 | 0.81 | 3.85000 | 0.03800 | 0.28340 | 0.00280 | 0.17079 | 1602.8 | 8.0 | 1608.0 | 14.0 | 1596 | 24 | 1596.0 | 24.0 | 0.8 | Single Age |

Table 3 Outer Lesser Himalaya zircon U-Pb Results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STJ05_56 | 199.7 | 0.72 | 2.16500 | 0.02000 | 0.19080 | 0.00160 | 0.32402 | 1169.7 | 6.4 | 1125.8 | 8.8 | 1247 | 21 | 1247.0 | 21.0 | 9.7 | Single Age |
| STJ05_57 | 467 | 2.83 | 5.25400 | 0.06100 | 0.32820 | 0.00410 | 0.89743 | 1861.0 | 9.9 | 1830.0 | 20.0 | 1887 | 19 | 1887.0 | 19.0 | 3.0 | Single Age |
| STJ05_58 | 85.8 | 0.28 | 11.01200 | 0.09500 | 0.48220 | 0.00460 | 0.70391 | 2523.7 | 8.0 | 2536.0 | 20.0 | 2505 | 10 | 2504.9 | 9.8 | 1.2 | Single Age |
| STJ05_59 | 29.1 | 1.15 | 2.14600 | 0.02700 | 0.19740 | 0.00230 | 0.17779 | 1163.0 | 8.8 | 1161.0 | 12.0 | 1137 | 32 | 1137.0 | 32.0 | 2.1 | Single Age |
| STJ05_60 | 43.1 | 0.60 | 3.85600 | 0.04100 | 0.28320 | 0.00210 | 0.48388 | 1603.8 | 8.6 | 1607.0 | 10.0 | 1599 | 19 | 1599.0 | 19.0 | 0.5 | Single Age |
| STJ05_61 | 171 | 1.00 | 3.87600 | 0.03900 | 0.28250 | 0.00220 | 0.65029 | 1608.1 | 8.1 | 1604.0 | 11.0 | 1591 | 14 | 1591.0 | 14.0 | 0.8 | Single Age |
| STJ05_62 | 214 | 0.62 | 1.19700 | 0.02900 | 0.12600 | 0.00110 | 0.32918 | 798.0 | 13.0 | 765.0 | 6.4 | 869 | 37 | 765.0 | 6.4 | 4.1 | Single Age |
| STJ05_63 | 209 | 1.85 | 1.33200 | 0.01200 | 0.14300 | 0.00130 | 0.66463 | 859.5 | 5.2 | 861.6 | 7.1 | 842 | 15 | 842.0 | 7.1 | 0.2 | Single Age |
| STJ05_64 | 86.7 | 0.72 | 1.11700 | 0.01900 | 0.12380 | 0.00130 | 0.39761 | 761.0 | 9.0 | 752.4 | 7.4 | 781 | 33 | 752.4 | 7.4 | 1.1 | Single Age |
| STJ05_65 | 85 | 0.74 | 5.93800 | 0.05200 | 0.35180 | 0.00300 | 0.56416 | 1966.4 | 7.6 | 1943.0 | 14.0 | 1984 | 16 | 1984.0 | 16.0 | 2.1 | Single Age |
| STJ05_66 | 50.7 | 0.54 | 3.14100 | 0.05000 | 0.24460 | 0.00290 | 0.20469 | 1441.0 | 12.0 | 1410.0 | 15.0 | 1480 | 27 | 1480.0 | 27.0 | 4.7 | Single Age |
| STJ05_67 | 173.4 | 1.58 | 1.22600 | 0.02300 | 0.13290 | 0.00140 | 0.44437 | 814.2 | 9.6 | 804.1 | 8.1 | 843 | 34 | 804.1 | 8.1 | 1.2 | Single Age |
| STJ05_68 | 38.5 | 0.50 | 1.09400 | 0.02200 | 0.12380 | 0.00160 | 0.21152 | 749.0 | 11.0 | 752.3 | 9.3 | 719 | 47 | 752.3 | 9.3 | 0.4 | Single Age |
| STJ05_69 | 70.7 | 0.23 | 3.45400 | 0.03400 | 0.26470 | 0.00270 | 0.45803 | 1517.2 | 7.6 | 1514.0 | 14.0 | 1524 | 20 | 1524.0 | 20.0 | 0.7 | Single Age |
| STJ05_70 | 135.8 | 1.86 | 8.82000 | 0.14000 | 0.41980 | 0.00500 | 0.53400 | 2319.0 | 14.0 | 2260.0 | 23.0 | 2363 | 21 | 2363.0 | 21.0 | 4.4 | Single Age |
| STJ05_71 | 63.5 | 0.83 | 1.32100 | 0.02100 | 0.14050 | 0.00170 | 0.33895 | 854.4 | 9.2 | 847.4 | 9.4 | 872 | 34 | 847.4 | 9.4 | 0.8 | Single Age |
| STJ05_72 | 244 | 0.85 | 4.62800 | 0.03200 | 0.31120 | 0.00230 | 0.66609 | 1754.1 | 5.7 | 1746.0 | 11.0 | 1753 | 11 | 1753.0 | 11.0 | 0.4 | Single Age |
| STJ05_73 | 211 | 2.78 | 5.24100 | 0.04000 | 0.33220 | 0.00270 | 0.48755 | 1859.0 | 6.5 | 1849.0 | 13.0 | 1854 | 14 | 1854.0 | 14.0 | 0.3 | Single Age |
| STJ05_74 | 382.2 | 0.90 | 1.22800 | 0.01200 | 0.13360 | 0.00120 | 0.41641 | 813.4 | 5.4 | 808.3 | 6.9 | 811 | 21 | 808.3 | 6.9 | 0.6 | Single Age |
| STJ05_75 | 37.99 | 0.71 | 4.05600 | 0.04500 | 0.28940 | 0.00270 | 0.48673 | 1644.7 | 9.0 | 1638.0 | 13.0 | 1645 | 20 | 1645.0 | 20.0 | 0.4 | Single Age |
| STJ05_76 | 107 | 0.79 | 6.07000 | 0.05000 | 0.35920 | 0.00300 | 0.41114 | 1985.6 | 7.2 | 1981.0 | 13.0 | 1989 | 15 | 1989.0 | 15.0 | 0.4 | Single Age |
| STJ05_77 | 175 | 3.80 | 1.24200 | 0.02100 | 0.13440 | 0.00240 | 0.61360 | 821.0 | 10.0 | 813.0 | 13.0 | 846 | 35 | 813.0 | 13.0 | 1.0 | Single Age |
| STJ05_78 | 158 | 1.14 | 1.31600 | 0.01400 | 0.13980 | 0.00140 | 0.31709 | 852.2 | 6.2 | 843.7 | 7.7 | 856 | 24 | 843.7 | 7.7 | 1.0 | Single Age |
| STJ05_79 | 231 | 2.01 | 3.15600 | 0.02300 | 0.25140 | 0.00230 | 0.60794 | 1446.3 | 5.7 | 1445.0 | 12.0 | 1437 | 14 | 1437.0 | 14.0 | 0.6 | Single Age |
| STJ05_80 | 42.8 | 1.29 | 1.26300 | 0.02900 | 0.13660 | 0.00300 | 0.58450 | 830.0 | 13.0 | 825.0 | 17.0 | 836 | 41 | 825.0 | 17.0 | 0.6 | Single Age |
| STJ05_81 | 23.27 | 0.63 | 1.22100 | 0.02400 | 0.13220 | 0.00220 | 0.23654 | 811.0 | 11.0 | 800.0 | 13.0 | 866 | 50 | 800.0 | 13.0 | 1.4 | Single Age |
| STJ05_82 | 17.34 | 0.85 | 3.17900 | 0.06000 | 0.24310 | 0.00310 | 0.29910 | 1453.0 | 14.0 | 1403.0 | 16.0 | 1529 | 36 | 1529.0 | 36.0 | 8.2 | Single Age |
| STJ05_83 | 52.5 | 0.81 | 1.17500 | 0.01900 | 0.13010 | 0.00160 | 0.12399 | 788.4 | 9.0 | 788.1 | 8.9 | 779 | 35 | 788.1 | 8.9 | 0.0 | Single Age |
| STJ05_84 | 120.9 | 1.20 | 3.11300 | 0.02100 | 0.24740 | 0.00170 | 0.36995 | 1435.7 | 5.3 | 1426.1 | 8.6 | 1446 | 15 | 1446.0 | 15.0 | 1.4 | Single Age |
| STJ05_85 | 209 | 0.66 | 2.92600 | 0.01800 | 0.23780 | 0.00170 | 0.51836 | 1388.5 | 4.6 | 1375.2 | 8.7 | 1407 | 14 | 1407.0 | 14.0 | 2.3 | Single Age |
| STJ05_86 | 201 | 1.04 | 4.64700 | 0.03800 | 0.30060 | 0.00210 | 0.70760 | 1758.9 | 6.9 | 1694.0 | 11.0 | 1824 | 11 | 1824.0 | 11.0 | 7.1 | Single Age |
| STJ05_87 | 201 | 1.37 | 1.13300 | 0.01200 | 0.12360 | 0.00140 | 0.49488 | 768.8 | 5.9 | 751.0 | 8.2 | 837 | 23 | 751.0 | 8.2 | 2.3 | Single Age |
| STJ05_88 | 64.5 | 1.25 | 3.00200 | 0.04300 | 0.24030 | 0.00280 | 0.17370 | 1407.0 | 11.0 | 1388.0 | 15.0 | 1443 | 28 | 1443.0 | 28.0 | 3.8 | Single Age |
| STJ05_89 | 21.5 | 1.61 | 4.15100 | 0.06500 | 0.29090 | 0.00460 | 0.46116 | 1665.0 | 13.0 | 1646.0 | 23.0 | 1678 | 33 | 1678.0 | 33.0 | 1.9 | Single Age |
| STJ05_90 | 84 | 1.14 | 3.74800 | 0.03700 | 0.27840 | 0.00240 | 0.05022 | 1583.0 | 7.1 | 1583.0 | 12.0 | 1581 | 17 | 1581.0 | 17.0 | 0.1 | Single Age |
| STJ05_91 | 69.7 | 0.87 | 1.41300 | 0.02300 | 0.14710 | 0.00180 | 0.23133 | 895.0 | 9.2 | 885.0 | 10.0 | 935 | 32 | 935.0 | 32.0 | 5.3 | Single Age |
| STJ05_92 | 32 | 0.99 | 1.14600 | 0.02500 | 0.12430 | 0.00200 | 0.30246 | 778.0 | 12.0 | 755.0 | 12.0 | 824 | 48 | 755.0 | 12.0 | 3.0 | Single Age |
| STJ05_93 | 309 | 0.64 | 1.26600 | 0.01200 | 0.13490 | 0.00130 | 0.47862 | 830.3 | 5.1 | 815.7 | 7.1 | 851 | 18 | 815.7 | 7.1 | 1.8 | Single Age |
| STJ05_94 | 51.5 | 1.39 | 1.20000 | 0.02300 | 0.13050 | 0.00160 | 0.06857 | 800.0 | 11.0 | 790.9 | 9.3 | 852 | 45 | 790.9 | 9.3 | 1.1 | Single Age |
| STJ05_95 | 68.8 | 0.53 | 1.36000 | 0.01700 | 0.14390 | 0.00140 | 0.22530 | 871.2 | 7.4 | 866.3 | 7.7 | 890 | 29 | 890.0 | 29.0 | 2.7 | Single Age |
| STJ05_96 | 181 | 0.97 | 3.30300 | 0.02600 | 0.25780 | 0.00190 | 0.61952 | 1481.5 | 6.1 | 1478.6 | 9.7 | 1493 | 12 | 1493.0 | 12.0 | 1.0 | Single Age |
| STJ05_97 | 77.1 | 1.02 | 3.68800 | 0.03300 | 0.27550 | 0.00310 | 0.67621 | 1568.4 | 7.0 | 1568.0 | 16.0 | 1576 | 16 | 1576.0 | 16.0 | 0.5 | Single Age |

Table 3 Outer Lesser Himalaya zircon U-Pb Results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STJ05_98 | 51 | 0.81 | 1.23200 | 0.01800 | 0.13580 | 0.00160 | 0.30576 | 815.6 | 8.1 | 820.7 | 8.9 | 806 | 33 | 820.7 | 8.9 | 0.6 | Single Age |
| STJ05_100 | 62.5 | 1.51 | 0.85600 | 0.01500 | 0.10330 | 0.00130 | 0.39039 | 628.1 | 8.1 | 633.9 | 7.7 | 613 | 34 | 633.9 | 7.7 | 0.9 | Single Age |
| STJ05_101 | 28.8 | 0.77 | 8.54000 | 0.11000 | 0.42500 | 0.00620 | 0.73385 | 2289.0 | 12.0 | 2282.0 | 28.0 | 2295 | 18 | 2295.0 | 18.0 | 0.6 | Single Age |
| STJ05_102 | 108.5 | 1.27 | 2.36400 | 0.02200 | 0.21370 | 0.00210 | 0.57179 | 1231.3 | 6.8 | 1248.0 | 11.0 | 1210 | 15 | 1210.0 | 15.0 | 3.1 | Single Age |
| STJ05_103 | 154 | 0.82 | 10.12700 | 0.09400 | 0.45940 | 0.00570 | 0.64509 | 2446.0 | 8.6 | 2436.0 | 25.0 | 2462 | 16 | 2462.0 | 16.0 | 1.1 | Single Age |
| STJ05_104 | 445 | 1.09 | 2.41700 | 0.04300 | 0.18770 | 0.00340 | 0.91288 | 1247.0 | 13.0 | 1109.0 | 19.0 | 1486 | 16 | 1486.0 | 16.0 | 25.4 | Single Age |
| STJ05_105 | 43.8 | 1.36 | 1.24100 | 0.02400 | 0.13470 | 0.00170 | 0.42548 | 818.0 | 11.0 | 814.3 | 9.9 | 827 | 39 | 814.3 | 9.9 | 0.5 | Single Age |
| STJ05_106 | 46.3 | 0.57 | 1.15100 | 0.03300 | 0.12700 | 0.00160 | 0.45369 | 772.0 | 13.0 | 770.7 | 9.4 | 794 | 55 | 770.7 | 9.4 | 0.2 | Single Age |
| STJ05_107 | 125 | 1.54 | 1.27800 | 0.02000 | 0.13780 | 0.00170 | 0.44351 | 838.3 | 8.1 | 832.1 | 9.8 | 843 | 30 | 832.1 | 9.8 | 0.7 | Single Age |
| STJ05_108 | 167.9 | 1.49 | 1.24800 | 0.01500 | 0.13420 | 0.00140 | 0.61548 | 822.3 | 7.0 | 811.5 | 7.7 | 859 | 23 | 811.5 | 7.7 | 1.3 | Single Age |
| STJ05_109 | 77.2 | 1.29 | 1.14100 | 0.01600 | 0.12690 | 0.00130 | 0.28761 | 773.5 | 7.6 | 770.0 | 7.5 | 778 | 30 | 770.0 | 7.5 | 0.5 | Single Age |
| STJ05_110 | 475 | 3.04 | 1.23400 | 0.02700 | 0.13190 | 0.00300 | 0.78635 | 816.0 | 12.0 | 798.0 | 17.0 | 854 | 34 | 798.0 | 17.0 | 2.2 | Single Age |
| STJ05_111 | 99.2 | 2.05 | 4.21900 | 0.06500 | 0.29810 | 0.00460 | 0.75840 | 1677.0 | 13.0 | 1682.0 | 23.0 | 1691 | 21 | 1691.0 | 21.0 | 0.5 | Single Age |
| STJ05_112 | 174.6 | 3.03 | 4.61400 | 0.03300 | 0.31060 | 0.00210 | 0.51063 | 1751.4 | 5.9 | 1743.0 | 10.0 | 1771 | 12 | 1771.0 | 12.0 | 1.6 | Single Age |
| STJ05_113 | 75.7 | 1.48 | 1.31300 | 0.02300 | 0.13590 | 0.00170 | 0.42919 | 851.0 | 10.0 | 821.6 | 9.5 | 930 | 36 | 821.6 | 9.5 | 3.5 | Single Age |
| STJ05_114 | 420 | 1.03 | 1.13200 | 0.02000 | 0.12450 | 0.00210 | 0.79748 | 769.7 | 9.0 | 756.0 | 12.0 | 812 | 22 | 756.0 | 12.0 | 1.8 | Single Age |
| STJ05_115 | 154 | 0.61 | 1.16000 | 0.01500 | 0.12760 | 0.00200 | 0.37163 | 783.1 | 7.5 | 774.0 | 11.0 | 820 | 38 | 774.0 | 11.0 | 1.2 | Single Age |
| STJ05_116 | 36.95 | 0.63 | 1.19600 | 0.02300 | 0.13180 | 0.00190 | 0.29235 | 799.0 | 11.0 | 798.0 | 11.0 | 805 | 46 | 798.0 | 11.0 | 0.1 | Single Age |
| STJ05_117 | 203.9 | 6.62 | 10.67800 | 0.08700 | 0.46100 | 0.00390 | 0.61415 | 2497.2 | 7.9 | 2448.0 | 17.0 | 2545 | 13 | 2545.0 | 13.0 | 3.8 | Single Age |
| STJ05_118 | 285.2 | 1.69 | 10.19000 | 0.17000 | 0.45200 | 0.00850 | 0.86377 | 2452.0 | 16.0 | 2403.0 | 38.0 | 2505 | 20 | 2505.0 | 20.0 | 4.1 | Single Age |
| STJ05_119 | 227 | 1.10 | 5.78800 | 0.04700 | 0.35200 | 0.00340 | 0.71361 | 1944.1 | 7.0 | 1946.0 | 16.0 | 1941 | 12 | 1941.0 | 12.0 | 0.3 | Single Age |
| STJ05_120 | 86.8 | 0.59 | 1.21100 | 0.02200 | 0.13170 | 0.00240 | 0.46273 | 805.2 | 9.8 | 797.0 | 14.0 | 827 | 38 | 797.0 | 14.0 | 1.0 | Single Age |
| MSB01_1 | 318 | 1.51 | 4.86300 | 0.03600 | 0.30700 | 0.00290 | 0.68778 | 1795.7 | 6.3 | 1726.0 | 14.0 | 1866 | 12 | 1866.0 | 12.0 | 7.5 | Single Age |
| MSB01_3 | 187.6 | 1.50 | 1.30900 | 0.01800 | 0.13860 | 0.00190 | 0.31555 | 849.3 | 7.9 | 837.0 | 11.0 | 873 | 35 | 837.0 | 11.0 | 1.4 | Single Age |
| MSB01_4 | 136.8 | 1.32 | 5.28700 | 0.04900 | 0.33410 | 0.00340 | 0.56348 | 1866.4 | 7.9 | 1861.0 | 16.0 | 1864 | 18 | 1864.0 | 18.0 | 0.2 | Single Age |
| MSB01_5 | 83.7 | 1.08 | 8.15000 | 0.07500 | 0.40360 | 0.00430 | 0.55435 | 2247.3 | 8.3 | 2185.0 | 20.0 | 2303 | 17 | 2303.0 | 17.0 | 5.1 | Single Age |
| MSB01_6 | 127.6 | 0.55 | 9.28000 | 0.12000 | 0.42190 | 0.00690 | 0.72420 | 2368.0 | 12.0 | 2268.0 | 31.0 | 2453 | 19 | 2453.0 | 19.0 | 7.5 | Single Age |
| MSB01_7 | 256.6 | 1.71 | 1.30400 | 0.01200 | 0.13930 | 0.00150 | 0.42847 | 847.2 | 5.5 | 840.8 | 8.3 | 855 | 23 | 840.8 | 8.3 | 0.8 | Single Age |
| MSB01_8 | 285 | 1.05 | 3.62100 | 0.04500 | 0.26330 | 0.00270 | 0.73441 | 1553.6 | 9.7 | 1507.0 | 14.0 | 1611 | 15 | 1611.0 | 15.0 | 6.5 | Single Age |
| MSB01_9 | 373 | 1.63 | 1.35200 | 0.01200 | 0.14310 | 0.00140 | 0.49062 | 868.2 | 5.3 | 861.9 | 7.9 | 878 | 20 | 878.0 | 20.0 | 1.8 | Single Age |
| MSB01_10 | 95 | 0.46 | 1.46700 | 0.02800 | 0.14640 | 0.00240 | 0.59797 | 916.0 | 12.0 | 881.0 | 13.0 | 992 | 32 | 992.0 | 32.0 | 11.2 | Single Age |
| MSB01_11 | 146.5 | 1.66 | 5.09600 | 0.03300 | 0.32220 | 0.00240 | 0.62658 | 1835.2 | 5.4 | 1800.0 | 12.0 | 1877 | 11 | 1877.0 | 11.0 | 4.1 | Single Age |
| MSB01_12 | 122.3 | 1.17 | 3.40200 | 0.03200 | 0.26180 | 0.00230 | 0.58431 | 1505.3 | 7.4 | 1499.0 | 12.0 | 1504 | 16 | 1504.0 | 16.0 | 0.3 | Single Age |
| MSB01_13 | 231 | 0.99 | 4.43900 | 0.04400 | 0.29930 | 0.00290 | 0.62052 | 1720.6 | 8.3 | 1687.0 | 14.0 | 1763 | 16 | 1763.0 | 16.0 | 4.3 | Single Age |
| MSB01_14 | 50 | 0.64 | 1.21900 | 0.01900 | 0.13390 | 0.00160 | 0.16647 | 808.4 | 8.7 | 809.9 | 8.9 | 814 | 39 | 809.9 | 8.9 | 0.2 | Single Age |
| MSB01_15 | 155.6 | 1.13 | 9.09500 | 0.09600 | 0.43580 | 0.00600 | 0.61299 | 2347.2 | 9.6 | 2331.0 | 27.0 | 2358 | 16 | 2358.0 | 16.0 | 1.1 | Single Age |
| MSB01_16 | 324 | 1.96 | 4.66800 | 0.03400 | 0.29610 | 0.00250 | 0.62305 | 1761.3 | 6.2 | 1672.0 | 12.0 | 1868 | 13 | 1868.0 | 13.0 | 10.5 | Single Age |
| MSB01_17 | 157.2 | 0.58 | 1.28400 | 0.01700 | 0.13790 | 0.00140 | 0.36120 | 839.4 | 7.4 | 832.8 | 8.1 | 870 | 30 | 832.8 | 8.1 | 0.8 | Single Age |
| MSB01_18 | 213.3 | 0.92 | 3.87400 | 0.02700 | 0.27950 | 0.00230 | 0.69981 | 1608.7 | 5.6 | 1589.0 | 12.0 | 1635 | 10 | 1634.5 | 9.5 | 2.8 | Single Age |
| MSB01_19 | 258 | 0.74 | 3.65700 | 0.03600 | 0.26310 | 0.00330 | 0.63639 | 1561.7 | 7.8 | 1505.0 | 17.0 | 1660 | 16 | 1660.0 | 16.0 | 9.3 | Single Age |
| MSB01_20 | 35.4 | 0.73 | 1.10600 | 0.02900 | 0.12250 | 0.00220 | 0.27048 | 755.0 | 14.0 | 745.0 | 13.0 | 790 | 61 | 745.0 | 13.0 | 1.3 | Single Age |
| MSB01_21 | 166.6 | 0.86 | 9.21200 | 0.07600 | 0.42260 | 0.00350 | 0.54619 | 2359.8 | 7.4 | 2272.0 | 16.0 | 2431 | 13 | 2431.0 | 13.0 | 6.5 | Single Age |

Table 3 Outer Lesser Himalaya zircon U-Pb Results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MSB01_22 | 132 | 0.70 | 1.00900 | 0.02100 | 0.10480 | 0.00160 | 0.65968 | 707.0 | 11.0 | 642.2 | 9.1 | 915 | 31 | 642.2 | 9.1 | 9.2 | Single Age |
| MSB01_23 | 273 | 0.77 | 4.92400 | 0.04100 | 0.31420 | 0.00290 | 0.79768 | 1806.1 | 7.1 | 1761.0 | 14.0 | 1866 | 11 | 1866.0 | 11.0 | 5.6 | Single Age |
| MSB01_24 | 427 | 0.59 | 1.09900 | 0.01600 | 0.12170 | 0.00170 | 0.40816 | 752.3 | 7.7 | 740.0 | 10.0 | 792 | 24 | 740.0 | 10.0 | 1.6 | Single Age |
| MSB01_25 | 76 | 1.17 | 9.84000 | 0.13000 | 0.43190 | 0.00590 | 0.78966 | 2419.0 | 12.0 | 2313.0 | 27.0 | 2500 | 17 | 2500.0 | 17.0 | 7.5 | Single Age |
| MSB01_26 | 59 | 0.39 | 9.62000 | 0.14000 | 0.41850 | 0.00540 | 0.73617 | 2394.0 | 11.0 | 2253.0 | 24.0 | 2525 | 15 | 2525.0 | 15.0 | 10.8 | Single Age |
| MSB01_27 | 408.7 | 3.76 | 1.21000 | 0.01600 | 0.12610 | 0.00150 | 0.52058 | 804.9 | 7.5 | 765.3 | 8.4 | 910 | 28 | 765.3 | 8.4 | 4.9 | Single Age |
| MSB01_28 | 22.7 | 0.52 | 4.75800 | 0.07900 | 0.31480 | 0.00470 | 0.42924 | 1776.0 | 14.0 | 1764.0 | 23.0 | 1816 | 34 | 1816.0 | 34.0 | 2.9 | Single Age |
| MSB01_29 | 204 | 0.71 | 4.69900 | 0.04500 | 0.30220 | 0.00310 | 0.68820 | 1766.7 | 8.0 | 1702.0 | 15.0 | 1846 | 16 | 1846.0 | 16.0 | 7.8 | Single Age |
| MSB01_30 | 347 | 2.61 | 1.65400 | 0.01600 | 0.16290 | 0.00130 | 0.25267 | 991.0 | 6.0 | 972.8 | 7.4 | 1029 | 20 | 1029.0 | 20.0 | 5.5 | Single Age |
| MSB01_31 | 32.6 | 0.90 | 11.89000 | 0.14000 | 0.46530 | 0.00570 | 0.56849 | 2596.0 | 11.0 | 2462.0 | 25.0 | 2707 | 17 | 2707.0 | 17.0 | 9.1 | Single Age |
| MSB01_32 | 226 | 1.02 | 2.28600 | 0.05100 | 0.19890 | 0.00270 | 0.66379 | 1203.0 | 14.0 | 1169.0 | 14.0 | 1256 | 28 | 1256.0 | 28.0 | 6.9 | Single Age |
| MSB01_33 | 279 | 0.93 | 1.09300 | 0.02100 | 0.12050 | 0.00250 | 0.76188 | 752.0 | 11.0 | 734.0 | 14.0 | 818 | 32 | 734.0 | 14.0 | 2.4 | Single Age |
| MSB01_34 | 220.4 | 0.64 | 1.09970 | 0.00990 | 0.12127 | 0.00085 | 0.55949 | 753.0 | 4.8 | 737.8 | 4.9 | 815 | 16 | 737.8 | 4.9 | 2.0 | Single Age |
| MSB01_35 | 120.8 | 0.92 | 5.17400 | 0.05200 | 0.32780 | 0.00270 | 0.59168 | 1847.8 | 8.5 | 1827.0 | 13.0 | 1864 | 17 | 1864.0 | 17.0 | 2.0 | Single Age |
| MSB01_36 | 131.6 | 0.89 | 3.56600 | 0.03800 | 0.26520 | 0.00240 | 0.56684 | 1541.4 | 8.4 | 1516.0 | 12.0 | 1567 | 17 | 1567.0 | 17.0 | 3.3 | Single Age |
| MSB01_37 | 57.5 | 0.86 | 1.22800 | 0.02000 | 0.13280 | 0.00250 | 0.39625 | 813.9 | 9.4 | 803.0 | 14.0 | 844 | 43 | 803.0 | 14.0 | 1.3 | Single Age |
| MSB01_38 | 358 | 1.06 | 4.49200 | 0.02900 | 0.30630 | 0.00230 | 0.55407 | 1729.3 | 5.4 | 1722.0 | 11.0 | 1746 | 13 | 1746.0 | 13.0 | 1.4 | Single Age |
| MSB01_39 | 91.6 | 0.87 | 3.67700 | 0.03200 | 0.27000 | 0.00240 | 0.41872 | 1566.0 | 6.9 | 1541.0 | 12.0 | 1597 | 18 | 1597.0 | 18.0 | 3.5 | Single Age |
| MSB01_40 | 124 | 0.85 | 2.15800 | 0.02000 | 0.19420 | 0.00170 | 0.47564 | 1167.1 | 6.5 | 1143.9 | 9.1 | 1206 | 19 | 1206.0 | 19.0 | 5.1 | Single Age |
| MSB01_41 | 227 | 0.92 | 1.19390 | 0.00990 | 0.12944 | 0.00096 | 0.35897 | 797.6 | 4.6 | 784.7 | 5.5 | 846 | 20 | 784.7 | 5.5 | 1.6 | Single Age |
| MSB01_42 | 255 | 3.47 | 4.99700 | 0.03800 | 0.31710 | 0.00220 | 0.61483 | 1818.5 | 6.5 | 1775.0 | 11.0 | 1870 | 12 | 1870.0 | 12.0 | 5.1 | Single Age |
| MSB01_43 | 201 | 0.79 | 1.16900 | 0.01600 | 0.12840 | 0.00180 | 0.76579 | 785.6 | 7.4 | 778.0 | 10.0 | 792 | 21 | 778.0 | 10.0 | 1.0 | Single Age |
| MSB01_44 | 244 | 2.72 | 4.77400 | 0.04100 | 0.30430 | 0.00340 | 0.69078 | 1780.9 | 6.9 | 1717.0 | 16.0 | 1852 | 16 | 1852.0 | 16.0 | 7.3 | Single Age |
| MSB01_45 | 354 | 0.99 | 1.27500 | 0.01100 | 0.13700 | 0.00110 | 0.50377 | 834.4 | 5.1 | 827.4 | 6.0 | 851 | 17 | 827.4 | 6.0 | 0.8 | Single Age |
| MSB01_46 | 382 | 1.50 | 11.77000 | 0.11000 | 0.47830 | 0.00500 | 0.59201 | 2585.9 | 8.4 | 2523.0 | 21.0 | 2646 | 14 | 2646.0 | 14.0 | 4.6 | Single Age |
| MSB01_47 | 47.1 | 0.97 | 4.90000 | 0.06400 | 0.32100 | 0.00300 | 0.43711 | 1803.0 | 11.0 | 1794.0 | 14.0 | 1826 | 23 | 1826.0 | 23.0 | 1.8 | Single Age |
| MSB01_48 | 59.3 | 0.87 | 2.09100 | 0.02700 | 0.19220 | 0.00230 | 0.21753 | 1145.2 | 8.8 | 1133.0 | 12.0 | 1179 | 29 | 1179.0 | 29.0 | 3.9 | Single Age |
| MSB01_49 | 135 | 1.09 | 4.12500 | 0.03300 | 0.29310 | 0.00210 | 0.32697 | 1659.7 | 6.6 | 1657.0 | 11.0 | 1674 | 16 | 1674.0 | 16.0 | 1.0 | Single Age |
| MSB01_50 | 206 | 0.96 | 3.92500 | 0.04700 | 0.28160 | 0.00380 | 0.79502 | 1618.0 | 9.6 | 1599.0 | 19.0 | 1637 | 17 | 1637.0 | 17.0 | 2.3 | Single Age |
| MSB01_51 | 85.2 | 0.87 | 1.27000 | 0.01800 | 0.13880 | 0.00140 | 0.44090 | 831.7 | 7.9 | 837.7 | 8.2 | 829 | 28 | 837.7 | 8.2 | 0.7 | Single Age |
| MSB01_52 | 44.7 | 0.34 | 2.05000 | 0.03300 | 0.18800 | 0.00220 | 0.45315 | 1134.0 | 11.0 | 1112.0 | 12.0 | 1154 | 31 | 1154.0 | 31.0 | 3.6 | Single Age |
| MSB01_53 | 268 | 2.01 | 5.04600 | 0.08000 | 0.32380 | 0.00610 | 0.80114 | 1828.0 | 13.0 | 1807.0 | 30.0 | 1864 | 21 | 1864.0 | 21.0 | 3.1 | Single Age |
| MSB01_54 | 112.1 | 1.43 | 4.24900 | 0.04000 | 0.29580 | 0.00270 | 0.39169 | 1683.0 | 7.8 | 1670.0 | 14.0 | 1704 | 18 | 1704.0 | 18.0 | 2.0 | Single Age |
| MSB01_55 | 300.1 | 1.60 | 4.98500 | 0.07300 | 0.32070 | 0.00530 | 0.73085 | 1816.0 | 12.0 | 1792.0 | 26.0 | 1851 | 20 | 1851.0 | 20.0 | 3.2 | Single Age |
| MSB01_56 | 224.9 | 2.93 | 4.76500 | 0.03600 | 0.30520 | 0.00230 | 0.73914 | 1778.4 | 6.3 | 1717.0 | 12.0 | 1855 | 11 | 1855.0 | 11.0 | 7.4 | Single Age |
| MSB01_57 | 643 | 1.58 | 1.07900 | 0.02500 | 0.11520 | 0.00280 | 0.93346 | 743.0 | 12.0 | 703.0 | 16.0 | 873 | 19 | 703.0 | 16.0 | 5.4 | Single Age |
| MSB01_58 | 214.3 | 1.87 | 5.11800 | 0.03700 | 0.32470 | 0.00250 | 0.75869 | 1838.8 | 6.1 | 1812.0 | 12.0 | 1875 | 10 | 1875.0 | 10.0 | 3.4 | Single Age |
| MSB01_59 | 109.6 | 1.52 | 5.10300 | 0.07300 | 0.32610 | 0.00480 | 0.62308 | 1837.0 | 12.0 | 1823.0 | 24.0 | 1860 | 21 | 1860.0 | 21.0 | 2.0 | Single Age |
| MSB01_60 | 428 | 1.09 | 1.18800 | 0.01400 | 0.13160 | 0.00180 | 0.74855 | 794.6 | 6.3 | 799.0 | 10.0 | 783 | 18 | 799.0 | 10.0 | 0.6 | Single Age |
| MSB01_61 | 115.3 | 0.89 | 4.53200 | 0.03600 | 0.30850 | 0.00240 | 0.48448 | 1738.3 | 6.7 | 1733.0 | 12.0 | 1751 | 15 | 1751.0 | 15.0 | 1.0 | Single Age |
| MSB01_62 | 102 | 1.11 | 1.28200 | 0.01400 | 0.13690 | 0.00130 | 0.41053 | 838.6 | 6.0 | 826.9 | 7.6 | 851 | 23 | 826.9 | 7.6 | 1.4 | Single Age |
| MSB01_63 | 65.1 | 1.40 | 4.45300 | 0.05200 | 0.30630 | 0.00360 | 0.33887 | 1721.3 | 9.6 | 1722.0 | 18.0 | 1730 | 23 | 1730.0 | 23.0 | 0.5 | Single Age |

Table 3 Outer Lesser Himalaya zircon U-Pb Results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MSB01_64 | 195 | 3.66 | 5.74100 | 0.04700 | 0.34830 | 0.00290 | 0.69519 | 1937.1 | 7.1 | 1926.0 | 14.0 | 1958 | 12 | 1958.0 | 12.0 | 1.6 | Single Age |
| MSB01_65 | 416 | 1.92 | 4.88800 | 0.04700 | 0.31220 | 0.00260 | 0.70510 | 1800.6 | 8.0 | 1753.0 | 13.0 | 1862 | 12 | 1862.0 | 12.0 | 5.9 | Single Age |
| MSB01_66 | 77.8 | 0.87 | 1.21200 | 0.02000 | 0.12950 | 0.00130 | 0.19971 | 805.1 | 9.0 | 785.0 | 7.2 | 869 | 35 | 785.0 | 7.2 | 2.5 | Single Age |
| MSB01_67 | 154 | 1.22 | 1.60900 | 0.02400 | 0.15960 | 0.00280 | 0.49882 | 974.0 | 9.5 | 956.0 | 16.0 | 1030 | 34 | 1030.0 | 34.0 | 7.2 | Single Age |
| MSB01_68 | 91.6 | 0.93 | 10.60000 | 0.11000 | 0.46440 | 0.00560 | 0.69943 | 2490.1 | 9.4 | 2458.0 | 25.0 | 2527 | 16 | 2527.0 | 16.0 | 2.7 | Single Age |
| MSB01_69 | 105.3 | 0.74 | 4.20600 | 0.05200 | 0.29000 | 0.00390 | 0.58617 | 1675.7 | 9.8 | 1641.0 | 20.0 | 1721 | 23 | 1721.0 | 23.0 | 4.6 | Single Age |
| MSB01_70 | 180 | 0.71 | 1.75300 | 0.01900 | 0.17500 | 0.00140 | 0.34831 | 1027.9 | 7.1 | 1039.5 | 7.5 | 1000 | 23 | 1000.0 | 23.0 | 4.0 | Single Age |
| MSB01_71 | 92.3 | 0.76 | 4.71600 | 0.03900 | 0.31590 | 0.00230 | 0.55887 | 1772.2 | 7.3 | 1769.0 | 12.0 | 1777 | 14 | 1777.0 | 14.0 | 0.5 | Single Age |
| MSB01_72 | 258 | 4.65 | 1.40400 | 0.03700 | 0.14900 | 0.00540 | 0.82810 | 890.0 | 16.0 | 895.0 | 30.0 | 890 | 39 | 890.0 | 39.0 | 0.6 | Rim |
| MSB01_72 | 121 | 0.93 | 3.53400 | 0.05000 | 0.26690 | 0.00380 | 0.68075 | 1534.0 | 11.0 | 1525.0 | 19.0 | 1558 | 20 | 1558.0 | 20.0 | 2.1 | Core |
| MSB01_73 | 50.5 | 0.87 | 1.13300 | 0.01700 | 0.12700 | 0.00170 | 0.01778 | 768.5 | 8.3 | 770.0 | 10.0 | 752 | 44 | 770.0 | 10.0 | 0.2 | Single Age |
| MSB01_74 | 200.6 | 0.54 | 3.52100 | 0.04800 | 0.25650 | 0.00330 | 0.47136 | 1532.0 | 11.0 | 1472.0 | 17.0 | 1607 | 19 | 1607.0 | 19.0 | 8.4 | Single Age |
| MSB01_75 | 196 | 1.80 | 4.79400 | 0.04500 | 0.30820 | 0.00350 | 0.74284 | 1783.3 | 7.8 | 1732.0 | 17.0 | 1843 | 15 | 1843.0 | 15.0 | 6.0 | Single Age |
| MSB01_76 | 58.9 | 0.61 | 5.22400 | 0.05400 | 0.33390 | 0.00320 | 0.49461 | 1858.0 | 8.5 | 1857.0 | 15.0 | 1851 | 18 | 1851.0 | 18.0 | 0.3 | Single Age |
| MSB01_77 | 212.7 | 0.67 | 1.19000 | 0.01200 | 0.13040 | 0.00120 | 0.63373 | 795.5 | 5.6 | 790.8 | 7.2 | 812 | 19 | 790.8 | 7.2 | 0.6 | Single Age |
| MSB01_78 | 71.1 | 1.19 | 1.35300 | 0.02200 | 0.14220 | 0.00200 | 0.48659 | 867.9 | 9.6 | 857.0 | 11.0 | 897 | 33 | 897.0 | 33.0 | 4.5 | Single Age |
| MSB01_79 | 206.2 | 0.81 | 4.95000 | 0.06400 | 0.31730 | 0.00440 | 0.64279 | 1810.0 | 11.0 | 1776.0 | 22.0 | 1855 | 22 | 1855.0 | 22.0 | 4.3 | Single Age |
| MSB01_80 | 109.3 | 1.22 | 3.09300 | 0.03200 | 0.24710 | 0.00210 | 0.54585 | 1430.5 | 7.8 | 1423.0 | 11.0 | 1437 | 16 | 1437.0 | 16.0 | 1.0 | Single Age |
| MSB01_81 | 346 | 1.34 | 1.29700 | 0.01200 | 0.14010 | 0.00110 | 0.59351 | 844.2 | 5.2 | 845.2 | 6.3 | 853 | 17 | 845.2 | 6.3 | 0.1 | Single Age |
| MSB01_82 | 216 | 2.90 | 5.54600 | 0.04000 | 0.34560 | 0.00250 | 0.62180 | 1907.5 | 6.2 | 1913.0 | 12.0 | 1902 | 11 | 1902.0 | 11.0 | 0.6 | Single Age |
| MSB01_83 | 165.3 | 1.11 | 1.37200 | 0.01400 | 0.14490 | 0.00140 | 0.33250 | 877.4 | 5.7 | 872.4 | 7.7 | 895 | 21 | 895.0 | 21.0 | 2.5 | Single Age |
| MSB01_84 | 89.5 | 0.77 | 2.11200 | 0.02300 | 0.19610 | 0.00170 | 0.39859 | 1154.0 | 7.5 | 1154.3 | 9.3 | 1160 | 21 | 1160.0 | 21.0 | 0.5 | Single Age |
| MSB01_85 | 228.5 | 1.34 | 5.32400 | 0.05500 | 0.33540 | 0.00460 | 0.67133 | 1872.1 | 8.9 | 1864.0 | 22.0 | 1892 | 18 | 1892.0 | 18.0 | 1.5 | Single Age |
| MSB01_86 | 417 | 1.42 | 1.52000 | 0.06600 | 0.15200 | 0.00640 | 0.82130 | 937.0 | 26.0 | 911.0 | 36.0 | 1009 | 35 | 1009.0 | 35.0 | 9.7 | Single Age |
| MSB01_87 | 41.2 | 1.33 | 1.43400 | 0.02500 | 0.14970 | 0.00200 | 0.17022 | 903.0 | 10.0 | 899.0 | 11.0 | 928 | 38 | 928.0 | 38.0 | 3.1 | Single Age |
| MSB01_88 | 172.2 | 1.37 | 5.06700 | 0.06800 | 0.32350 | 0.00470 | 0.75170 | 1830.0 | 11.0 | 1806.0 | 23.0 | 1861 | 19 | 1861.0 | 19.0 | 3.0 | Single Age |
| MSB01_89 | 121.9 | 0.91 | 3.62900 | 0.04300 | 0.26960 | 0.00370 | 0.67086 | 1555.4 | 9.5 | 1538.0 | 19.0 | 1584 | 20 | 1584.0 | 20.0 | 2.9 | Single Age |
| MSB01_90 | 309 | 2.15 | 9.19000 | 0.13000 | 0.40160 | 0.00640 | 0.72490 | 2357.0 | 13.0 | 2175.0 | 29.0 | 2513 | 20 | 2513.0 | 20.0 | 13.5 | Single Age |
| MSB01_91 | 518 | 8.13 | 4.11000 | 0.05900 | 0.26240 | 0.00380 | 0.91682 | 1657.0 | 11.0 | 1504.0 | 20.0 | 1846 | 10 | 1845.7 | 9.8 | 18.5 | Single Age |
| MSB01_92 | 131 | 0.34 | 1.50100 | 0.02200 | 0.15410 | 0.00140 | 0.44799 | 930.3 | 8.8 | 923.6 | 7.6 | 940 | 27 | 940.0 | 27.0 | 1.7 | Single Age |
| MSB01_93 | 125.1 | 1.14 | 5.04200 | 0.08100 | 0.32270 | 0.00520 | 0.55326 | 1827.0 | 14.0 | 1802.0 | 25.0 | 1836 | 27 | 1836.0 | 27.0 | 1.9 | Single Age |
| MSB01_94 | 142 | 1.53 | 1.34300 | 0.02500 | 0.14440 | 0.00330 | 0.59251 | 863.0 | 11.0 | 869.0 | 19.0 | 850 | 34 | 850.0 | 34.0 | 0.7 | Single Age |
| MSB01_95 | 316 | 5.01 | 4.89000 | 0.11000 | 0.31420 | 0.00530 | 0.83952 | 1803.0 | 19.0 | 1761.0 | 26.0 | 1842 | 23 | 1842.0 | 23.0 | 4.4 | Single Age |
| MSB01_96 | 133 | 0.69 | 1.06500 | 0.03300 | 0.11160 | 0.00390 | 0.77796 | 735.0 | 16.0 | 686.0 | 21.0 | 914 | 49 | 686.0 | 21.0 | 6.7 | Single Age |
| MSB01_97 | 116.2 | 1.12 | 4.83000 | 0.04500 | 0.31190 | 0.00430 | 0.61933 | 1791.0 | 8.2 | 1750.0 | 21.0 | 1841 | 20 | 1841.0 | 20.0 | 4.9 | Single Age |
| MSB01_98 | 132 | 0.98 | 1.27200 | 0.01600 | 0.13860 | 0.00120 | 0.40534 | 832.6 | 7.2 | 836.7 | 6.8 | 810 | 24 | 836.7 | 6.8 | 0.5 | Single Age |
| MSB01_99 | 166.1 | 0.50 | 3.01600 | 0.03900 | 0.23310 | 0.00280 | 0.63432 | 1413.2 | 9.4 | 1351.0 | 15.0 | 1497 | 22 | 1497.0 | 22.0 | 9.8 | Single Age |
| MSB01_100 | 154.5 | 0.86 | 1.12500 | 0.01500 | 0.12600 | 0.00160 | 0.44704 | 765.9 | 6.8 | 765.1 | 9.1 | 755 | 30 | 765.1 | 9.1 | 0.1 | Single Age |
| MSB01_101 | 95.5 | 0.66 | 4.65200 | 0.04100 | 0.31120 | 0.00250 | 0.46139 | 1759.0 | 7.5 | 1746.0 | 12.0 | 1768 | 17 | 1768.0 | 17.0 | 1.2 | Single Age |
| MSB01_102 | 112.9 | 1.40 | 3.29800 | 0.03500 | 0.25660 | 0.00300 | 0.55279 | 1480.1 | 8.3 | 1472.0 | 15.0 | 1484 | 20 | 1484.0 | 20.0 | 0.8 | Single Age |
| MSB01_103 | 157 | 1.01 | 5.14000 | 0.05100 | 0.32690 | 0.00290 | 0.74525 | 1843.2 | 8.2 | 1823.0 | 14.0 | 1860 | 14 | 1860.0 | 14.0 | 2.0 | Single Age |
| MSB01_104 | 191 | 1.11 | 9.56000 | 0.24000 | 0.39960 | 0.00800 | 0.91053 | 2391.0 | 23.0 | 2166.0 | 37.0 | 2590 | 17 | 2590.0 | 17.0 | 16.4 | Single Age |

Table 3 Outer Lesser Himalaya zircon U-Pb Results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MSB01_105 | 148.6 | 1.17 | 2.10400 | 0.01900 | 0.19520 | 0.00200 | 0.53894 | 1149.6 | 6.4 | 1149.0 | 11.0 | 1158 | 19 | 1158.0 | 19.0 | 0.8 | Single Age |
| MSB01_106 | 310 | 1.02 | 1.32200 | 0.01500 | 0.14130 | 0.00150 | 0.62913 | 854.9 | 6.8 | 851.6 | 8.2 | 880 | 18 | 880.0 | 18.0 | 3.2 | Single Age |
| MSB01_107 | 277 | 0.50 | 2.23600 | 0.02800 | 0.20350 | 0.00240 | 0.67767 | 1191.7 | 8.6 | 1194.0 | 13.0 | 1197 | 18 | 1197.0 | 18.0 | 0.3 | Single Age |
| MSB01_108 | 245 | 5.37 | 5.10400 | 0.04300 | 0.32190 | 0.00280 | 0.50266 | 1836.5 | 7.1 | 1799.0 | 13.0 | 1877 | 15 | 1877.0 | 15.0 | 4.2 | Single Age |
| MSB01_109 | 223 | 0.94 | 1.38800 | 0.01100 | 0.14643 | 0.00094 | 0.34871 | 883.7 | 4.9 | 880.9 | 5.3 | 892 | 18 | 892.0 | 18.0 | 1.2 | Single Age |
| MSB01_110 | 295 | 1.39 | 5.01800 | 0.03500 | 0.31690 | 0.00250 | 0.62549 | 1822.9 | 5.8 | 1774.0 | 12.0 | 1874 | 13 | 1874.0 | 13.0 | 5.3 | Single Age |
| MSB01_111 | 169 | 0.66 | 5.27300 | 0.03700 | 0.33600 | 0.00280 | 0.60817 | 1864.2 | 6.0 | 1867.0 | 13.0 | 1872 | 12 | 1872.0 | 12.0 | 0.3 | Single Age |
| MSB01_112 | 229 | 1.15 | 1.39600 | 0.01700 | 0.14860 | 0.00160 | 0.56846 | 886.8 | 7.2 | 892.9 | 9.2 | 860 | 25 | 860.0 | 25.0 | 3.8 | Single Age |
| MSB01_113 | 241.2 | 0.97 | 10.90000 | 0.17000 | 0.46460 | 0.00790 | 0.49439 | 2514.0 | 14.0 | 2459.0 | 35.0 | 2546 | 24 | 2546.0 | 24.0 | 3.4 | Rim |
| MSB01_113 | 104.3 | 0.51 | 15.64000 | 0.14000 | 0.52430 | 0.00590 | 0.52103 | 2854.5 | 8.7 | 2717.0 | 25.0 | 2959 | 14 | 2959.0 | 14.0 | 8.2 | Core |
| MSB01_114 | 72.1 | 0.77 | 1.48700 | 0.02500 | 0.15280 | 0.00220 | 0.20000 | 926.0 | 10.0 | 917.0 | 13.0 | 959 | 44 | 959.0 | 44.0 | 4.4 | Single Age |
| MSB01_115 | 232.2 | 1.50 | 9.13700 | 0.07000 | 0.44300 | 0.00460 | 0.75179 | 2352.4 | 6.9 | 2363.0 | 21.0 | 2345 | 12 | 2345.0 | 12.0 | 0.8 | Single Age |
| MSB01_116 | 207.8 | 1.12 | 1.30600 | 0.01900 | 0.13950 | 0.00230 | 0.74081 | 849.8 | 8.5 | 842.0 | 13.0 | 875 | 22 | 842.0 | 13.0 | 0.9 | Single Age |
| MSB01_118 | 100.2 | 0.70 | 1.19800 | 0.01800 | 0.13290 | 0.00190 | 0.40753 | 799.1 | 8.3 | 806.0 | 10.0 | 803 | 33 | 806.0 | 10.0 | 0.9 | Single Age |
| MSB01_119 | 62.3 | 1.25 | 2.17200 | 0.02900 | 0.19780 | 0.00190 | 0.06276 | 1171.2 | 9.2 | 1163.0 | 10.0 | 1193 | 30 | 1193.0 | 30.0 | 2.5 | Single Age |
| MSB01_120 | 436 | 1.97 | 1.30400 | 0.01300 | 0.14070 | 0.00140 | 0.78195 | 848.0 | 5.8 | 848.7 | 8.1 | 853 | 15 | 848.7 | 8.1 | 0.1 | Single Age |
| 15HP76_1 | 52.1 | 0.64 | 1.11000 | 0.03000 | 0.12140 | 0.00230 | 0.01879 | 756.0 | 14.0 | 739.0 | 13.0 | 811 | 59 | 739.0 | 13.0 | 2.2 | Single Age |
| 15HP76_2 | 78.1 | 1.20 | 5.07400 | 0.07200 | 0.32590 | 0.00450 | 0.60409 | 1830.0 | 12.0 | 1818.0 | 22.0 | 1852 | 21 | 1852.0 | 21.0 | 1.8 | Single Age |
| 15HP76_3 | 487 | 19.40 | 6.05000 | 0.12000 | 0.35810 | 0.00480 | 0.67967 | 1986.0 | 18.0 | 1973.0 | 23.0 | 2000 | 27 | 2000.0 | 27.0 | 1.4 | Rim |
| 15HP76_3 | 54 | 0.96 | 10.73000 | 0.15000 | 0.47540 | 0.00700 | 0.39758 | 2499.0 | 13.0 | 2507.0 | 31.0 | 2486 | 23 | 2486.0 | 23.0 | 0.8 | Core |
| 15HP76_4 | 154 | 0.88 | 1.49200 | 0.01600 | 0.15510 | 0.00170 | 0.39148 | 926.9 | 6.6 | 929.4 | 9.7 | 918 | 25 | 918.0 | 25.0 | 1.2 | Single Age |
| 15HP76_5 | 275 | 1.04 | 1.15300 | 0.01400 | 0.12830 | 0.00130 | 0.36216 | 778.3 | 6.7 | 778.2 | 7.3 | 786 | 26 | 778.2 | 7.3 | 0.0 | Single Age |
| 15HP76_6 | 70.3 | 1.08 | 4.14000 | 0.04400 | 0.28600 | 0.00300 | 0.47573 | 1661.6 | 8.8 | 1621.0 | 15.0 | 1719 | 22 | 1719.0 | 22.0 | 5.7 | Single Age |
| 15HP76_7 | 144 | 1.30 | 3.23000 | 0.03300 | 0.25290 | 0.00240 | 0.29273 | 1463.8 | 7.9 | 1453.0 | 12.0 | 1478 | 24 | 1478.0 | 24.0 | 1.7 | Single Age |
| 15HP76_8 | 240.5 | 1.53 | 1.18300 | 0.01300 | 0.13180 | 0.00100 | 0.35733 | 792.3 | 6.2 | 798.0 | 5.9 | 787 | 24 | 798.0 | 5.9 | 0.7 | Single Age |
| 15HP76_9 | 84.6 | 1.07 | 1.35100 | 0.02600 | 0.14360 | 0.00190 | 0.47372 | 868.0 | 11.0 | 865.0 | 11.0 | 890 | 33 | 890.0 | 33.0 | 2.8 | Single Age |
| 15HP76_10 | 269.9 | 1.09 | 4.92400 | 0.04400 | 0.32300 | 0.00310 | 0.60173 | 1805.9 | 7.5 | 1804.0 | 15.0 | 1821 | 15 | 1821.0 | 15.0 | 0.9 | Single Age |
| 15HP76_11 | 139 | 0.92 | 4.00000 | 0.17000 | 0.28500 | 0.01100 | 0.47257 | 1628.0 | 33.0 | 1614.0 | 54.0 | 1675 | 58 | 1675.0 | 58.0 | 3.6 | Single Age |
| 15HP76_13 | 83.9 | 0.77 | 8.14000 | 0.12000 | 0.40830 | 0.00640 | 0.37270 | 2246.0 | 13.0 | 2207.0 | 29.0 | 2281 | 26 | 2281.0 | 26.0 | 3.2 | Single Age |
| 15HP76_14 | 262 | 7.47 | 1.65000 | 0.12000 | 0.14630 | 0.00310 | 0.00354 | 979.0 | 45.0 | 880.0 | 18.0 | 1190 | 140 | 1190.0 | 140.0 | 26.1 | Single Age |
| 15HP76_15 | 179.1 | 2.23 | 5.27300 | 0.04400 | 0.33670 | 0.00290 | 0.50654 | 1864.1 | 7.0 | 1871.0 | 14.0 | 1875 | 17 | 1875.0 | 17.0 | 0.2 | Single Age |
| 15HP76_16 | 150.9 | 1.17 | 4.05900 | 0.04500 | 0.28870 | 0.00430 | 0.69801 | 1645.3 | 9.0 | 1634.0 | 21.0 | 1636 | 19 | 1636.0 | 19.0 | 0.1 | Single Age |
| 15HP76_17 | 75.9 | 0.79 | 7.35200 | 0.07300 | 0.38230 | 0.00390 | 0.37664 | 2154.3 | 8.9 | 2086.0 | 18.0 | 2222 | 21 | 2222.0 | 21.0 | 6.1 | Single Age |
| 15HP76_18 | 129.5 | 0.95 | 10.25000 | 0.12000 | 0.46850 | 0.00600 | 0.62625 | 2456.0 | 10.0 | 2476.0 | 26.0 | 2438 | 18 | 2438.0 | 18.0 | 1.6 | Single Age |
| 15HP76_19 | 85 | 1.72 | 1.18500 | 0.02600 | 0.12270 | 0.00200 | 0.14170 | 792.0 | 12.0 | 746.0 | 11.0 | 899 | 49 | 746.0 | 11.0 | 5.8 | Single Age |
| 15HP76_20 | 493 | 1.56 | 1.31300 | 0.01900 | 0.13910 | 0.00210 | 0.75190 | 851.8 | 8.0 | 840.0 | 12.0 | 884 | 22 | 840.0 | 12.0 | 1.4 | Single Age |
| 15HP76_21 | 264.1 | 1.04 | 1.11600 | 0.02200 | 0.11580 | 0.00250 | 0.65524 | 760.0 | 10.0 | 708.0 | 14.0 | 901 | 38 | 708.0 | 14.0 | 6.8 | Single Age |
| 15HP76_22 | 149.2 | 1.94 | 1.38100 | 0.02100 | 0.14190 | 0.00200 | 0.35681 | 882.3 | 9.2 | 857.0 | 12.0 | 938 | 36 | 938.0 | 36.0 | 8.6 | Single Age |
| 15HP76_23 | 186 | 1.93 | 5.67300 | 0.08000 | 0.34620 | 0.00540 | 0.70070 | 1930.0 | 12.0 | 1915.0 | 26.0 | 1939 | 23 | 1939.0 | 23.0 | 1.2 | Single Age |
| 15HP76_24 | 55.8 | 0.80 | 1.19300 | 0.04200 | 0.12520 | 0.00300 | 0.38783 | 790.0 | 16.0 | 760.0 | 17.0 | 865 | 68 | 760.0 | 17.0 | 3.8 | Single Age |
| 15HP76_25 | 64.2 | 1.12 | 1.56800 | 0.03800 | 0.15280 | 0.00300 | 0.18924 | 957.0 | 15.0 | 916.0 | 17.0 | 1070 | 57 | 1070.0 | 57.0 | 14.4 | Single Age |
| 15HP76_26 | 162 | 2.26 | 4.86700 | 0.07400 | 0.30650 | 0.00460 | 0.42821 | 1796.0 | 13.0 | 1723.0 | 23.0 | 1873 | 30 | 1873.0 | 30.0 | 8.0 | Single Age |

Table 3 Outer Lesser Himalaya zircon U-Pb Results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP76_27 | 79.4 | 1.16 | 2.22800 | 0.05200 | 0.19780 | 0.00380 | 0.17735 | 1187.0 | 16.0 | 1163.0 | 20.0 | 1193 | 51 | 1193.0 | 51.0 | 2.5 | Single Age |
| 15HP76_28 | 55 | 0.83 | 4.91400 | 0.08000 | 0.31370 | 0.00570 | 0.65113 | 1804.0 | 14.0 | 1758.0 | 28.0 | 1844 | 26 | 1844.0 | 26.0 | 4.7 | Single Age |
| 15HP76_29 | 121.6 | 1.30 | 8.11000 | 0.16000 | 0.41600 | 0.01000 | 0.81511 | 2242.0 | 18.0 | 2250.0 | 45.0 | 2230 | 24 | 2230.0 | 24.0 | 0.9 | Single Age |
| 15HP76_30 | 79.7 | 1.16 | 3.70300 | 0.08600 | 0.27120 | 0.00650 | 0.61516 | 1571.0 | 18.0 | 1551.0 | 32.0 | 1587 | 40 | 1587.0 | 40.0 | 2.3 | Single Age |
| 15HP76_31 | 253 | 1.99 | 2.40200 | 0.02500 | 0.21080 | 0.00240 | 0.46367 | 1242.5 | 7.5 | 1233.0 | 13.0 | 1254 | 22 | 1254.0 | 22.0 | 1.7 | Single Age |
| 15HP76_32 | 94.3 | 0.67 | 1.13800 | 0.02500 | 0.12010 | 0.00120 | 0.02408 | 770.0 | 12.0 | 730.8 | 6.8 | 883 | 52 | 730.8 | 6.8 | 5.1 | Single Age |
| 15HP76_33 | 223.9 | 1.35 | 11.22000 | 0.18000 | 0.48800 | 0.00920 | 0.68221 | 2540.0 | 15.0 | 2561.0 | 40.0 | 2520 | 25 | 2520.0 | 25.0 | 1.6 | Single Age |
| 15HP76_34 | 67.4 | 1.86 | 5.44800 | 0.08000 | 0.33780 | 0.00600 | 0.61640 | 1892.0 | 12.0 | 1875.0 | 29.0 | 1904 | 25 | 1904.0 | 25.0 | 1.5 | Single Age |
| 15HP76_35 | 309 | 2.51 | 6.61700 | 0.09000 | 0.37870 | 0.00530 | 0.67089 | 2061.0 | 12.0 | 2070.0 | 25.0 | 2051 | 20 | 2051.0 | 20.0 | 0.9 | Single Age |
| 15HP76_36 | 103.3 | 1.51 | 1.24100 | 0.05000 | 0.13330 | 0.00230 | 0.00107 | 816.0 | 21.0 | 806.0 | 13.0 | 849 | 82 | 806.0 | 13.0 | 1.2 | Single Age |
| 15HP76_37 | 127.4 | 1.26 | 4.75000 | 0.04900 | 0.32040 | 0.00310 | 0.30259 | 1775.4 | 8.6 | 1791.0 | 15.0 | 1758 | 20 | 1758.0 | 20.0 | 1.9 | Single Age |
| 15HP76_38 | 163 | 1.84 | 1.29500 | 0.01900 | 0.13900 | 0.00170 | 0.14421 | 842.8 | 8.4 | 839.1 | 9.5 | 852 | 31 | 839.1 | 9.5 | 0.4 | Single Age |
| 15HP76_39 | 28.14 | 1.37 | 0.93100 | 0.03600 | 0.10730 | 0.00330 | 0.08606 | 666.0 | 19.0 | 657.0 | 19.0 | 659 | 85 | 657.0 | 19.0 | 1.4 | Single Age |
| 15HP76_40 | 182 | 0.50 | 1.54500 | 0.02800 | 0.14860 | 0.00190 | 0.28504 | 947.0 | 11.0 | 893.0 | 11.0 | 1089 | 34 | 1089.0 | 34.0 | 18.0 | Single Age |
| 15HP76_41 | 117 | 1.47 | 1.26000 | 0.02100 | 0.13540 | 0.00170 | 0.02349 | 827.2 | 9.2 | 818.2 | 9.9 | 838 | 43 | 818.2 | 9.9 | 1.1 | Single Age |
| 15HP76_42 | 62.4 | 1.75 | 1.55800 | 0.04400 | 0.15460 | 0.00370 | 0.10156 | 948.0 | 15.0 | 926.0 | 21.0 | 1006 | 66 | 1006.0 | 66.0 | 8.0 | Single Age |
| 15HP76_43 | 76.6 | 1.37 | 1.43500 | 0.02600 | 0.15170 | 0.00260 | 0.10882 | 902.0 | 11.0 | 910.0 | 15.0 | 879 | 40 | 879.0 | 40.0 | 3.5 | Single Age |
| 15HP76_44 | 77.2 | 1.36 | 0.98900 | 0.02400 | 0.11060 | 0.00180 | 0.25819 | 697.0 | 12.0 | 676.0 | 10.0 | 756 | 54 | 676.0 | 10.0 | 3.0 | Single Age |
| 15HP76_45 | 33 | 1.10 | 16.40000 | 0.25000 | 0.57200 | 0.01200 | 0.71276 | 2899.0 | 15.0 | 2911.0 | 48.0 | 2902 | 26 | 2902.0 | 26.0 | 0.3 | Single Age |
| 15HP76_46 | 266 | 2.18 | 1.31800 | 0.03400 | 0.14050 | 0.00360 | 0.63441 | 852.0 | 15.0 | 847.0 | 20.0 | 856 | 47 | 847.0 | 20.0 | 0.6 | Single Age |
| 15HP76_47 | 45.1 | 1.13 | 1.17000 | 0.13000 | 0.11000 | 0.00180 | 0.43453 | 753.0 | 41.0 | 673.0 | 11.0 | 920 | 140 | DISC | DISC | 10.6 | Single Age |
| 15HP76_48 | 70.6 | 0.92 | 1.50800 | 0.03400 | 0.15400 | 0.00210 | 0.19224 | 932.0 | 14.0 | 923.0 | 12.0 | 949 | 45 | 949.0 | 45.0 | 2.7 | Single Age |
| 15HP76_49 | 55 | 0.99 | 1.74000 | 0.13000 | 0.13540 | 0.00430 | 0.17145 | 1005.0 | 43.0 | 818.0 | 24.0 | 1430 | 140 | DISC | DISC | 18.6 | Single Age |
| 15HP76_50 | 258 | 2.78 | 1.34000 | 0.02800 | 0.14010 | 0.00340 | 0.53053 | 864.0 | 12.0 | 845.0 | 19.0 | 870 | 48 | 845.0 | 19.0 | 2.2 | Single Age |
| 15HP76_51 | 73.2 | 1.53 | 6.50000 | 0.12000 | 0.37890 | 0.00700 | 0.60436 | 2046.0 | 16.0 | 2070.0 | 33.0 | 2026 | 32 | 2026.0 | 32.0 | 2.2 | Single Age |
| 15HP76_52 | 75.4 | 0.98 | 1.16000 | 0.04100 | 0.12260 | 0.00260 | 0.21575 | 779.0 | 19.0 | 745.0 | 15.0 | 846 | 65 | 745.0 | 15.0 | 4.4 | Single Age |
| 15HP76_53 | 19.6 | 0.27 | 1.25000 | 0.10000 | 0.11760 | 0.00470 | 0.37485 | 810.0 | 42.0 | 716.0 | 27.0 | 1100 | 140 | DISC | DISC | 11.6 | Single Age |
| 15HP76_54 | 91.2 | 1.93 | 1.31200 | 0.03800 | 0.13830 | 0.00360 | 0.46529 | 848.0 | 16.0 | 835.0 | 20.0 | 871 | 49 | 835.0 | 20.0 | 1.5 | Single Age |
| 15HP76_55 | 217.9 | 1.17 | 8.62600 | 0.07200 | 0.42710 | 0.00440 | 0.59933 | 2298.8 | 7.5 | 2292.0 | 20.0 | 2295 | 14 | 2295.0 | 14.0 | 0.1 | Single Age |
| 15HP76_56 | 41 | 1.55 | 4.87000 | 0.11000 | 0.31690 | 0.00890 | 0.38738 | 1798.0 | 19.0 | 1779.0 | 42.0 | 1822 | 42 | 1822.0 | 42.0 | 2.4 | Single Age |
| 15HP76_57 | 204 | 2.25 | 1.37500 | 0.02400 | 0.14460 | 0.00230 | 0.12660 | 877.0 | 10.0 | 871.0 | 13.0 | 875 | 42 | 875.0 | 42.0 | 0.5 | Single Age |
| 15HP76_58 | 79.7 | 1.05 | 10.21000 | 0.13000 | 0.46430 | 0.00620 | 0.42002 | 2454.0 | 11.0 | 2457.0 | 27.0 | 2448 | 22 | 2448.0 | 22.0 | 0.4 | Single Age |
| 15HP76_59 | 310 | 0.93 | 1.12600 | 0.01800 | 0.12460 | 0.00180 | 0.39170 | 765.0 | 8.7 | 757.0 | 10.0 | 777 | 32 | 757.0 | 10.0 | 1.0 | Single Age |
| 15HP76_60 | 29.7 | 0.61 | 5.19000 | 0.11000 | 0.31600 | 0.00590 | 0.14105 | 1849.0 | 18.0 | 1769.0 | 29.0 | 1912 | 45 | 1912.0 | 45.0 | 7.5 | Single Age |
| 15HP76_61 | 115.6 | 0.84 | 5.11800 | 0.06100 | 0.32730 | 0.00360 | 0.52396 | 1839.0 | 10.0 | 1825.0 | 17.0 | 1850 | 21 | 1850.0 | 21.0 | 1.4 | Single Age |
| 15HP76_62 | 229.2 | 1.39 | 1.39500 | 0.09300 | 0.12890 | 0.00250 | 0.32790 | 868.0 | 33.0 | 781.0 | 14.0 | 1050 | 96 | DISC | DISC | 10.0 | Single Age |
| 15HP76_63 | 251 | 1.21 | 1.28900 | 0.02100 | 0.13900 | 0.00220 | 0.58239 | 841.1 | 9.1 | 839.0 | 13.0 | 827 | 27 | 839.0 | 13.0 | 0.2 | Single Age |
| 15HP76_64 | 88.4 | 2.05 | 11.03000 | 0.20000 | 0.46630 | 0.00710 | 0.52564 | 2526.0 | 17.0 | 2466.0 | 31.0 | 2564 | 27 | 2564.0 | 27.0 | 3.8 | Single Age |
| 15HP76_65 | 74.6 | 0.96 | 1.11600 | 0.03800 | 0.10480 | 0.00210 | 0.08245 | 761.0 | 17.0 | 642.0 | 12.0 | 1135 | 70 | DISC | DISC | 15.6 | Single Age |
| 15HP76_66 | 56.5 | 1.31 | 5.29000 | 0.11000 | 0.29380 | 0.00500 | 0.38491 | 1865.0 | 17.0 | 1660.0 | 25.0 | 2098 | 32 | 2098.0 | 32.0 | 20.9 | Single Age |
| 15HP76_67 | 127 | 1.74 | 1.19200 | 0.02700 | 0.12910 | 0.00270 | 0.30190 | 796.0 | 12.0 | 782.0 | 16.0 | 808 | 44 | 782.0 | 16.0 | 1.8 | Single Age |
| 15HP76_68 | 66 | 1.27 | 4.13500 | 0.07400 | 0.28960 | 0.00630 | 0.33617 | 1661.0 | 14.0 | 1638.0 | 31.0 | 1688 | 41 | 1688.0 | 41.0 | 3.0 | Single Age |

Table 3 Outer Lesser Himalaya zircon U-Pb Results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP76_69 | 48.9 | 0.81 | 1.11000 | 0.05000 | 0.12040 | 0.00210 | 0.00044 | 748.0 | 18.0 | 733.0 | 12.0 | 785 | 79 | 733.0 | 12.0 | 2.0 | Single Age |
| 15HP76_70 | 282 | 1.86 | 1.26500 | 0.02600 | 0.13460 | 0.00260 | 0.44544 | 829.0 | 11.0 | 816.0 | 15.0 | 870 | 39 | 816.0 | 15.0 | 1.6 | Single Age |
| 15HP76_71 | 279 | 1.03 | 1.18500 | 0.02200 | 0.13070 | 0.00240 | 0.47337 | 793.0 | 10.0 | 791.0 | 13.0 | 797 | 34 | 791.0 | 13.0 | 0.3 | Single Age |
| 15HP76_72 | 259 | 1.42 | 1.13700 | 0.02200 | 0.12550 | 0.00200 | 0.15776 | 768.1 | 9.5 | 762.0 | 12.0 | 786 | 35 | 762.0 | 12.0 | 0.8 | Single Age |
| 15HP76_73 | 49.7 | 0.71 | 1.21300 | 0.05300 | 0.12900 | 0.00310 | 0.27010 | 804.0 | 24.0 | 782.0 | 18.0 | 851 | 86 | 782.0 | 18.0 | 2.7 | Single Age |
| 15HP76_74 | 150.9 | 1.70 | 6.38200 | 0.09100 | 0.37010 | 0.00600 | 0.63818 | 2030.0 | 13.0 | 2029.0 | 28.0 | 2030 | 25 | 2030.0 | 25.0 | 0.0 | Single Age |
| 15HP76_75 | 185.4 | 2.50 | 4.16300 | 0.06000 | 0.29450 | 0.00500 | 0.65060 | 1667.0 | 12.0 | 1663.0 | 25.0 | 1696 | 26 | 1696.0 | 26.0 | 1.9 | Single Age |
| 15HP76_76 | 189.5 | 0.83 | 0.96800 | 0.01800 | 0.11200 | 0.00160 | 0.18941 | 687.1 | 9.6 | 684.2 | 9.4 | 697 | 55 | 684.2 | 9.4 | 0.4 | Single Age |
| 15HP76_77 | 234.8 | 1.67 | 13.59000 | 0.24000 | 0.51400 | 0.01100 | 0.66284 | 2719.0 | 16.0 | 2670.0 | 48.0 | 2749 | 28 | 2749.0 | 28.0 | 2.9 | Single Age |
| 15HP76_78 | 177.7 | 0.98 | 5.51000 | 0.31000 | 0.34430 | 0.00960 | 0.47965 | 1879.0 | 33.0 | 1912.0 | 47.0 | 1861 | 52 | 1861.0 | 52.0 | 2.7 | Single Age |
| 15HP76_79 | 70.1 | 0.97 | 5.65000 | 0.11000 | 0.35010 | 0.00800 | 0.52843 | 1922.0 | 16.0 | 1933.0 | 38.0 | 1883 | 38 | 1883.0 | 38.0 | 2.7 | Single Age |
| 15HP76_80 | 87.9 | 1.21 | 2.33100 | 0.06600 | 0.20800 | 0.00570 | 0.12882 | 1224.0 | 19.0 | 1217.0 | 30.0 | 1184 | 71 | 1184.0 | 71.0 | 2.8 | Single Age |
| 15HP76_81 | 243.9 | 1.09 | 5.21800 | 0.07800 | 0.33250 | 0.00630 | 0.59922 | 1856.0 | 13.0 | 1853.0 | 31.0 | 1864 | 30 | 1864.0 | 30.0 | 0.6 | Single Age |
| 15HP76_82 | 125.6 | 3.23 | 6.07900 | 0.07100 | 0.35820 | 0.00410 | 0.42873 | 1988.0 | 10.0 | 1973.0 | 20.0 | 2005 | 19 | 2005.0 | 19.0 | 1.6 | Single Age |
| 15HP76_83 | 95.3 | 1.13 | 20.06000 | 0.17000 | 0.61910 | 0.00630 | 0.68402 | 3093.6 | 8.3 | 3105.0 | 25.0 | 3087 | 12 | 3087.0 | 12.0 | 0.6 | Single Age |
| 15HP76_84 | 175 | 1.22 | 3.72200 | 0.05500 | 0.27590 | 0.00480 | 0.58772 | 1579.0 | 12.0 | 1570.0 | 24.0 | 1583 | 26 | 1583.0 | 26.0 | 0.8 | Single Age |
| 15HP76_85 | 112.7 | 1.87 | 3.15600 | 0.04000 | 0.24170 | 0.00280 | 0.30097 | 1445.9 | 9.7 | 1397.0 | 14.0 | 1516 | 28 | 1516.0 | 28.0 | 7.8 | Single Age |
| 15HP76_86 | 174 | 1.95 | 7.33000 | 0.11000 | 0.38920 | 0.00540 | 0.52559 | 2154.0 | 14.0 | 2119.0 | 25.0 | 2182 | 24 | 2182.0 | 24.0 | 2.9 | Single Age |
| 15HP76_87 | 131.3 | 1.20 | 1.36500 | 0.02800 | 0.14100 | 0.00210 | 0.14882 | 873.0 | 12.0 | 850.0 | 12.0 | 921 | 49 | 921.0 | 49.0 | 7.7 | Single Age |
| 15HP76_88 | 57.2 | 1.02 | 5.09100 | 0.09100 | 0.32710 | 0.00530 | 0.39018 | 1832.0 | 15.0 | 1823.0 | 26.0 | 1829 | 32 | 1829.0 | 32.0 | 0.3 | Single Age |
| 15HP76_89 | 440 | 2.65 | 1.04400 | 0.02700 | 0.10890 | 0.00210 | 0.70649 | 727.0 | 14.0 | 666.0 | 12.0 | 901 | 34 | 666.0 | 12.0 | 8.4 | Single Age |
| 15HP76_90 | 163 | 1.27 | 1.32200 | 0.02500 | 0.14070 | 0.00290 | 0.46408 | 857.0 | 11.0 | 848.0 | 17.0 | 846 | 42 | 848.0 | 17.0 | 1.1 | Single Age |
| 15HP76_91 | 155 | 4.16 | 5.02600 | 0.06800 | 0.32590 | 0.00500 | 0.61066 | 1825.0 | 11.0 | 1818.0 | 24.0 | 1832 | 22 | 1832.0 | 22.0 | 0.8 | Single Age |
| 15HP76_92 | 104.5 | 1.13 | 2.33300 | 0.04500 | 0.20660 | 0.00330 | 0.51416 | 1224.0 | 14.0 | 1210.0 | 17.0 | 1236 | 33 | 1236.0 | 33.0 | 2.1 | Single Age |
| 15HP76_93 | 275 | 5.89 | 1.39400 | 0.02100 | 0.14770 | 0.00240 | 0.61977 | 886.8 | 9.3 | 888.0 | 13.0 | 899 | 33 | 899.0 | 33.0 | 1.2 | Single Age |
| 15HP76_94 | 240 | 2.12 | 1.73000 | 0.02800 | 0.17320 | 0.00270 | 0.50486 | 1021.0 | 10.0 | 1029.0 | 15.0 | 1002 | 33 | 1002.0 | 33.0 | 2.7 | Single Age |
| 15HP76_95 | 97.8 | 2.92 | 5.56000 | 0.19000 | 0.33800 | 0.01000 | 0.51825 | 1910.0 | 29.0 | 1876.0 | 50.0 | 1953 | 53 | 1953.0 | 53.0 | 3.9 | Single Age |
| 15HP76_96 | 55.3 | 1.53 | 6.24200 | 0.06900 | 0.35910 | 0.00510 | 0.37064 | 2010.9 | 9.5 | 1977.0 | 24.0 | 2060 | 25 | 2060.0 | 25.0 | 4.0 | Single Age |
| 15HP76_97 | 98.8 | 1.21 | 13.62000 | 0.16000 | 0.52200 | 0.00690 | 0.52990 | 2722.0 | 11.0 | 2706.0 | 29.0 | 2742 | 19 | 2742.0 | 19.0 | 1.3 | Single Age |
| 15HP76_98 | 164.1 | 1.77 | 2.78000 | 0.18000 | 0.20520 | 0.00920 | 0.67958 | 1331.0 | 47.0 | 1207.0 | 50.0 | 1569 | 63 | 1569.0 | 63.0 | 23.1 | Single Age |
| 15HP76_99 | 117.8 | 1.16 | 1.26100 | 0.02900 | 0.13180 | 0.00250 | 0.35206 | 827.0 | 13.0 | 798.0 | 14.0 | 907 | 46 | 798.0 | 14.0 | 3.5 | Single Age |
| 15HP76_100 | 282 | 5.23 | 4.90800 | 0.08600 | 0.31830 | 0.00550 | 0.63411 | 1803.0 | 15.0 | 1780.0 | 27.0 | 1819 | 27 | 1819.0 | 27.0 | 2.1 | Single Age |
| 15HP76_101 | 425 | 1.53 | 5.53900 | 0.06000 | 0.34160 | 0.00430 | 0.63770 | 1906.9 | 9.1 | 1894.0 | 20.0 | 1915 | 17 | 1915.0 | 17.0 | 1.1 | Single Age |
| 15HP76_102 | 254 | 1.90 | 4.46800 | 0.05400 | 0.30660 | 0.00500 | 0.67647 | 1724.0 | 10.0 | 1723.0 | 25.0 | 1736 | 21 | 1736.0 | 21.0 | 0.7 | Single Age |
| 15HP76_103 | 174 | 1.63 | 1.23600 | 0.02800 | 0.11660 | 0.00240 | 0.54157 | 818.0 | 12.0 | 713.0 | 14.0 | 1109 | 42 | DISC | DISC | 12.8 | Single Age |
| 15HP76_104 | 387 | 2.39 | 1.24400 | 0.01800 | 0.13470 | 0.00130 | 0.61612 | 820.2 | 8.3 | 814.3 | 7.4 | 862 | 23 | 814.3 | 7.4 | 0.7 | Single Age |
| 15HP76_105 | 78.6 | 0.92 | 4.97900 | 0.06500 | 0.32210 | 0.00500 | 0.54785 | 1817.0 | 11.0 | 1799.0 | 25.0 | 1845 | 24 | 1845.0 | 24.0 | 2.5 | Single Age |
| 15HP76_106 | 185 | 1.80 | 5.19700 | 0.05000 | 0.33310 | 0.00300 | 0.59935 | 1854.0 | 7.8 | 1856.0 | 15.0 | 1859 | 15 | 1859.0 | 15.0 | 0.2 | Single Age |
| 15HP76_107 | 122.2 | 1.34 | 1.68700 | 0.05800 | 0.13340 | 0.00230 | 0.40058 | 1006.0 | 22.0 | 807.0 | 13.0 | 1486 | 61 | DISC | DISC | 19.8 | Single Age |
| 15HP76_108 | 85 | 1.75 | 6.76500 | 0.09300 | 0.38210 | 0.00530 | 0.73367 | 2080.0 | 12.0 | 2085.0 | 25.0 | 2095 | 19 | 2095.0 | 19.0 | 0.5 | Single Age |
| 15HP76_109 | 323.8 | 2.23 | 1.34500 | 0.03500 | 0.14570 | 0.00370 | 0.46060 | 863.0 | 15.0 | 876.0 | 21.0 | 898 | 53 | 898.0 | 53.0 | 2.4 | Single Age |
| 15HP76_111 | 60.7 | 1.43 | 1.59200 | 0.08600 | 0.12150 | 0.00440 | 0.38685 | 967.0 | 33.0 | 738.0 | 25.0 | 1508 | 98 | DISC | DISC | 23.7 | Single Age |

Table 3 Outer Lesser Himalaya zircon U-Pb Results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP76_112 | 289 | 1.65 | 5.00600 | 0.05200 | 0.32010 | 0.00330 | 0.56115 | 1820.8 | 8.7 | 1792.0 | 16.0 | 1852 | 17 | 1852.0 | 17.0 | 3.2 | Single Age |
| 15HP76_113 | 103 | 1.23 | 5.19200 | 0.04900 | 0.33200 | 0.00400 | 0.29145 | 1850.7 | 8.1 | 1850.0 | 19.0 | 1865 | 19 | 1865.0 | 19.0 | 0.8 | Single Age |
| 15HP76_114 | 399 | 1.21 | 4.82300 | 0.06800 | 0.31330 | 0.00510 | 0.73020 | 1788.0 | 12.0 | 1756.0 | 25.0 | 1821 | 22 | 1821.0 | 22.0 | 3.6 | Single Age |
| 15HP76_115 | 47.4 | 1.15 | 1.27000 | 0.04000 | 0.12000 | 0.00190 | 0.25970 | 829.0 | 18.0 | 730.0 | 11.0 | 1082 | 54 | DISC | DISC | 11.9 | Single Age |
| 15HP76_116 | 179 | 1.54 | 4.96900 | 0.05700 | 0.32160 | 0.00340 | 0.66124 | 1814.2 | 9.5 | 1797.0 | 16.0 | 1835 | 17 | 1835.0 | 17.0 | 2.1 | Single Age |
| 15HP76_117 | 106.3 | 1.22 | 1.22100 | 0.02700 | 0.13020 | 0.00170 | 0.49673 | 809.0 | 12.0 | 788.7 | 9.8 | 878 | 39 | 788.7 | 9.8 | 2.5 | Single Age |
| 15HP76_118 | 161.2 | 1.57 | 1.34500 | 0.02200 | 0.14300 | 0.00230 | 0.51704 | 866.1 | 9.9 | 861.0 | 13.0 | 894 | 29 | 894.0 | 29.0 | 3.7 | Single Age |
| 15HP76_119 | 334 | 1.42 | 1.62000 | 0.11000 | 0.13810 | 0.00240 | 0.43717 | 961.0 | 41.0 | 834.0 | 14.0 | 1240 | 110 | DISC | DISC | 13.2 | Single Age |
| 15HP76_120 | 317 | 1.25 | 1.20000 | 0.03000 | 0.12230 | 0.00260 | 0.61076 | 803.0 | 14.0 | 743.0 | 15.0 | 985 | 37 | 743.0 | 15.0 | 7.5 | Single Age |
| MST01_1 | 70.9 | 0.74 | 2.30200 | 0.03700 | 0.20930 | 0.00310 | 0.67540 | 1212.0 | 11.0 | 1225.0 | 17.0 | 1183 | 26 | 1183.0 | 26.0 | 3.6 | Single Age |
| MST01_2 | 468 | 1.60 | 4.75900 | 0.04600 | 0.30130 | 0.00330 | 0.82778 | 1777.0 | 8.1 | 1697.0 | 16.0 | 1878 | 10 | 1878.0 | 10.0 | 9.6 | Single Age |
| MST01_3 | 100.2 | 1.08 | 5.47200 | 0.06700 | 0.33420 | 0.00420 | 0.69313 | 1897.0 | 11.0 | 1858.0 | 20.0 | 1930 | 18 | 1930.0 | 18.0 | 3.7 | Single Age |
| MST01_4 | 119.9 | 0.36 | 4.55000 | 0.06100 | 0.30960 | 0.00450 | 0.56627 | 1741.0 | 11.0 | 1738.0 | 22.0 | 1733 | 21 | 1733.0 | 21.0 | 0.3 | Single Age |
| MST01_5 | 377 | 0.55 | 1.17600 | 0.01200 | 0.12790 | 0.00160 | 0.65222 | 789.7 | 5.7 | 775.6 | 8.9 | 818 | 19 | 775.6 | 8.9 | 1.8 | Single Age |
| MST01_6 | 62.3 | 0.42 | 11.32000 | 0.14000 | 0.45540 | 0.00640 | 0.76840 | 2549.0 | 11.0 | 2426.0 | 28.0 | 2646 | 16 | 2646.0 | 16.0 | 8.3 | Single Age |
| MST01_7 | 39 | 1.22 | 10.20000 | 0.17000 | 0.44820 | 0.00840 | 0.69887 | 2452.0 | 15.0 | 2386.0 | 37.0 | 2487 | 25 | 2487.0 | 25.0 | 4.1 | Single Age |
| MST01_8 | 245 | 2.45 | 1.92600 | 0.03800 | 0.18270 | 0.00300 | 0.74689 | 1089.0 | 13.0 | 1081.0 | 16.0 | 1106 | 26 | 1106.0 | 26.0 | 2.3 | Single Age |
| MST01_9 | 29.93 | 0.71 | 6.36000 | 0.11000 | 0.35140 | 0.00440 | 0.58228 | 2028.0 | 14.0 | 1944.0 | 22.0 | 2104 | 25 | 2104.0 | 25.0 | 7.6 | Single Age |
| MST01_10 | 270.4 | 0.58 | 1.51000 | 0.01900 | 0.15350 | 0.00220 | 0.70323 | 933.9 | 7.6 | 920.0 | 12.0 | 965 | 21 | 965.0 | 21.0 | 4.7 | Single Age |
| MST01_11 | 40.1 | 0.39 | 4.15000 | 0.15000 | 0.26740 | 0.00450 | 0.73596 | 1658.0 | 27.0 | 1527.0 | 23.0 | 1815 | 43 | 1815.0 | 43.0 | 15.9 | Single Age |
| MST01_12 | 95 | 0.63 | 2.76000 | 0.06800 | 0.22110 | 0.00530 | 0.80759 | 1345.0 | 19.0 | 1287.0 | 28.0 | 1452 | 29 | 1452.0 | 29.0 | 11.4 | Single Age |
| MST01_13 | 34.8 | 0.43 | 1.54500 | 0.03300 | 0.15320 | 0.00340 | 0.37467 | 948.0 | 13.0 | 919.0 | 19.0 | 994 | 47 | 994.0 | 47.0 | 7.5 | Single Age |
| MST01_14 | 176.5 | 0.91 | 1.36400 | 0.02000 | 0.14380 | 0.00180 | 0.51621 | 873.4 | 8.5 | 866.0 | 10.0 | 890 | 28 | 890.0 | 28.0 | 2.7 | Single Age |
| MST01_16 | 112 | 0.40 | 4.30800 | 0.04500 | 0.29970 | 0.00380 | 0.65359 | 1695.7 | 8.8 | 1690.0 | 19.0 | 1690 | 18 | 1690.0 | 18.0 | 0.0 | Single Age |
| MST01_17 | 161.1 | 1.24 | 10.79000 | 0.11000 | 0.47780 | 0.00560 | 0.79494 | 2504.4 | 9.7 | 2521.0 | 25.0 | 2494 | 13 | 2494.0 | 13.0 | 1.1 | Single Age |
| MST01_18 | 204.2 | 0.67 | 5.66200 | 0.05600 | 0.34620 | 0.00390 | 0.68805 | 1925.0 | 8.5 | 1918.0 | 18.0 | 1935 | 14 | 1935.0 | 14.0 | 0.9 | Single Age |
| MST01_19 | 187.4 | 0.48 | 3.48800 | 0.02400 | 0.25780 | 0.00230 | 0.56228 | 1524.3 | 5.5 | 1478.0 | 12.0 | 1585 | 14 | 1585.0 | 14.0 | 6.8 | Single Age |
| MST01_20 | 131 | 1.40 | 4.80200 | 0.06100 | 0.32170 | 0.00430 | 0.66426 | 1784.0 | 11.0 | 1797.0 | 21.0 | 1783 | 18 | 1783.0 | 18.0 | 0.8 | Single Age |
| MST01_21 | 128.5 | 1.14 | 5.01000 | 0.03300 | 0.32470 | 0.00290 | 0.61810 | 1822.1 | 5.8 | 1812.0 | 14.0 | 1834 | 14 | 1834.0 | 14.0 | 1.2 | Single Age |
| MST01_22 | 150 | 0.69 | 3.80600 | 0.05700 | 0.27780 | 0.00520 | 0.66923 | 1593.0 | 12.0 | 1579.0 | 26.0 | 1604 | 26 | 1604.0 | 26.0 | 1.6 | Single Age |
| MST01_23 | 320 | 0.57 | 1.26600 | 0.04000 | 0.12880 | 0.00200 | 0.48247 | 825.0 | 15.0 | 781.0 | 11.0 | 958 | 46 | 781.0 | 11.0 | 5.3 | Single Age |
| MST01_24 | 292.8 | 1.01 | 12.45000 | 0.13000 | 0.49770 | 0.00530 | 0.79739 | 2640.8 | 9.2 | 2603.0 | 23.0 | 2655 | 11 | 2655.0 | 11.0 | 2.0 | Single Age |
| MST01_25 | 201 | 0.96 | 10.44900 | 0.09600 | 0.46080 | 0.00490 | 0.77307 | 2474.8 | 8.5 | 2442.0 | 22.0 | 2504 | 12 | 2504.0 | 12.0 | 2.5 | Single Age |
| MST01_26 | 153.1 | 0.81 | 10.91300 | 0.05500 | 0.47880 | 0.00340 | 0.47406 | 2516.2 | 4.9 | 2522.0 | 15.0 | 2514 | 10 | 2514.0 | 10.0 | 0.3 | Single Age |
| MST01_27 | 56 | 1.10 | 24.87000 | 0.35000 | 0.67240 | 0.00880 | 0.83720 | 3301.0 | 14.0 | 3314.0 | 34.0 | 3295 | 12 | 3295.0 | 12.0 | 0.6 | Single Age |
| MST01_28 | 62.5 | 1.46 | 1.39600 | 0.02700 | 0.14920 | 0.00270 | 0.65260 | 886.0 | 12.0 | 896.0 | 15.0 | 884 | 32 | 884.0 | 32.0 | 1.4 | Single Age |
| MST01_29 | 195.3 | 1.40 | 4.63200 | 0.03000 | 0.31110 | 0.00240 | 0.72575 | 1754.8 | 5.3 | 1746.0 | 12.0 | 1770 | 13 | 1770.0 | 13.0 | 1.4 | Single Age |
| MST01_30 | 343 | 2.73 | 4.83200 | 0.03400 | 0.31790 | 0.00250 | 0.61312 | 1791.1 | 6.1 | 1779.0 | 12.0 | 1803 | 12 | 1803.0 | 12.0 | 1.3 | Single Age |
| MST01_32 | 131.4 | 1.02 | 4.34900 | 0.08400 | 0.30010 | 0.00640 | 0.79938 | 1701.0 | 16.0 | 1695.0 | 32.0 | 1695 | 20 | 1695.0 | 20.0 | 0.0 | Single Age |
| MST01_33 | 132.9 | 0.61 | 4.19200 | 0.06100 | 0.28910 | 0.00520 | 0.69025 | 1671.0 | 12.0 | 1636.0 | 26.0 | 1696 | 24 | 1696.0 | 24.0 | 3.5 | Single Age |
| MST01_34 | 170 | 0.79 | 1.14800 | 0.02100 | 0.12480 | 0.00180 | 0.32954 | 776.3 | 9.7 | 758.0 | 10.0 | 816 | 37 | 758.0 | 10.0 | 2.4 | Single Age |
| MST01_35 | 87.7 | 0.98 | 7.50000 | 0.19000 | 0.38490 | 0.00810 | 0.69482 | 2172.0 | 24.0 | 2097.0 | 38.0 | 2236 | 34 | 2236.0 | 34.0 | 6.2 | Single Age |

Table 3 Outer Lesser Himalaya zircon U-Pb Results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MST01_37 | 167 | 0.83 | 10.48200 | 0.07200 | 0.45600 | 0.00260 | 0.50855 | 2478.0 | 6.3 | 2421.0 | 12.0 | 2519 | 11 | 2519.0 | 11.0 | 3.9 | Single Age |
| MST01_38 | 193.2 | 2.26 | 1.57200 | 0.02400 | 0.15620 | 0.00240 | 0.54267 | 958.6 | 9.6 | 935.0 | 14.0 | 998 | 29 | 998.0 | 29.0 | 6.3 | Single Age |
| MST01_39 | 79.6 | 0.78 | 24.96000 | 0.35000 | 0.62540 | 0.00930 | 0.80738 | 3308.0 | 13.0 | 3130.0 | 37.0 | 3409 | 13 | 3409.0 | 13.0 | 8.2 | Single Age |
| MST01_40 | 71.2 | 0.43 | 2.73200 | 0.05200 | 0.21470 | 0.00330 | 0.72941 | 1336.0 | 14.0 | 1253.0 | 17.0 | 1449 | 23 | 1449.0 | 23.0 | 13.5 | Single Age |
| MST01_41 | 105.5 | 0.84 | 1.19200 | 0.01900 | 0.13120 | 0.00180 | 0.40291 | 797.5 | 8.4 | 795.0 | 10.0 | 809 | 27 | 795.0 | 10.0 | 0.3 | Single Age |
| MST01_42 | 209.1 | 1.23 | 1.44800 | 0.02000 | 0.15320 | 0.00220 | 0.63530 | 908.2 | 8.3 | 919.0 | 12.0 | 903 | 25 | 903.0 | 25.0 | 1.8 | Single Age |
| MST01_43 | 34.6 | 0.38 | 1.61200 | 0.02700 | 0.16410 | 0.00260 | 0.44049 | 975.0 | 10.0 | 979.0 | 14.0 | 977 | 36 | 977.0 | 36.0 | 0.2 | Single Age |
| MST01_44 | 230.3 | 1.53 | 4.78200 | 0.04700 | 0.32030 | 0.00300 | 0.59574 | 1782.5 | 8.0 | 1791.0 | 15.0 | 1768 | 16 | 1768.0 | 16.0 | 1.3 | Single Age |
| MST01_45 | 54.9 | 0.22 | 4.14900 | 0.04400 | 0.28610 | 0.00350 | 0.44800 | 1664.9 | 9.0 | 1622.0 | 18.0 | 1719 | 22 | 1719.0 | 22.0 | 5.6 | Single Age |
| MST01_46 | 41.5 | 0.71 | 9.92000 | 0.16000 | 0.43490 | 0.00790 | 0.66715 | 2428.0 | 15.0 | 2326.0 | 35.0 | 2504 | 25 | 2504.0 | 25.0 | 7.1 | Single Age |
| MST01_47 | 23.3 | 0.23 | 4.30000 | 0.09700 | 0.30020 | 0.00540 | 0.57581 | 1693.0 | 18.0 | 1691.0 | 27.0 | 1715 | 36 | 1715.0 | 36.0 | 1.4 | Single Age |
| MST01_48 | 35.2 | 0.77 | 0.84200 | 0.01900 | 0.10010 | 0.00150 | 0.16822 | 621.0 | 11.0 | 614.7 | 8.9 | 656 | 56 | 614.7 | 8.9 | 1.0 | Single Age |
| MST01_49 | 285 | 0.54 | 4.22000 | 0.03700 | 0.27740 | 0.00250 | 0.81247 | 1678.3 | 7.3 | 1580.0 | 13.0 | 1802 | 10 | 1802.0 | 10.0 | 12.3 | Single Age |
| MST01_51 | 112.4 | 0.68 | 4.31800 | 0.07600 | 0.30140 | 0.00640 | 0.31257 | 1696.0 | 15.0 | 1698.0 | 32.0 | 1703 | 43 | 1703.0 | 43.0 | 0.3 | Single Age |
| MST01_52 | 168.7 | 1.86 | 1.11200 | 0.01500 | 0.12490 | 0.00170 | 0.74743 | 758.5 | 7.2 | 758.4 | 9.6 | 767 | 29 | 758.4 | 9.6 | 0.0 | Single Age |
| MST01_53 | 67.26 | 0.74 | 1.25000 | 0.01800 | 0.13560 | 0.00130 | 0.42130 | 823.9 | 8.2 | 819.8 | 7.3 | 838 | 27 | 819.8 | 7.3 | 0.5 | Single Age |
| MST01_54 | 90 | 0.41 | 3.76800 | 0.05500 | 0.25330 | 0.00420 | 0.59212 | 1585.0 | 12.0 | 1455.0 | 21.0 | 1767 | 25 | 1767.0 | 25.0 | 17.7 | Single Age |
| MST01_55 | 282 | 0.62 | 4.85000 | 0.04400 | 0.31880 | 0.00350 | 0.77832 | 1793.1 | 7.6 | 1786.0 | 18.0 | 1795 | 13 | 1795.0 | 13.0 | 0.5 | Single Age |
| MST01_56 | 127.8 | 0.23 | 2.94000 | 0.14000 | 0.19730 | 0.00930 | 0.94460 | 1393.0 | 35.0 | 1157.0 | 50.0 | 1767 | 25 | DISC | DISC | 34.5 | Single Age |
| MST01_57 | 61.4 | 0.83 | 3.14000 | 0.04500 | 0.24960 | 0.00260 | 0.49434 | 1441.0 | 11.0 | 1436.0 | 13.0 | 1453 | 22 | 1453.0 | 22.0 | 1.2 | Single Age |
| MST01_58 | 155.5 | 0.59 | 2.63300 | 0.03900 | 0.20830 | 0.00290 | 0.76571 | 1309.0 | 11.0 | 1220.0 | 15.0 | 1470 | 19 | 1470.0 | 19.0 | 17.0 | Single Age |
| MST01_59 | 74.5 | 0.41 | 4.40400 | 0.05400 | 0.30500 | 0.00370 | 0.64270 | 1713.0 | 10.0 | 1716.0 | 18.0 | 1710 | 19 | 1710.0 | 19.0 | 0.4 | Single Age |
| MST01_60 | 57 | 0.98 | 1.25800 | 0.01900 | 0.13740 | 0.00200 | 0.27553 | 826.3 | 8.4 | 830.0 | 11.0 | 813 | 32 | 830.0 | 11.0 | 0.4 | Single Age |
| MST01_61 | 86.6 | 0.92 | 1.23000 | 0.01900 | 0.13280 | 0.00220 | 0.26934 | 814.0 | 8.6 | 803.0 | 12.0 | 825 | 41 | 803.0 | 12.0 | 1.4 | Single Age |
| MST01_62 | 67.5 | 0.65 | 4.23000 | 0.11000 | 0.21700 | 0.00600 | 0.72216 | 1676.0 | 21.0 | 1265.0 | 32.0 | 2244 | 34 | DISC | DISC | 43.6 | Single Age |
| MST01_63 | 49.6 | 0.34 | 3.96800 | 0.06100 | 0.28190 | 0.00380 | 0.66820 | 1626.0 | 12.0 | 1600.0 | 19.0 | 1666 | 22 | 1666.0 | 22.0 | 4.0 | Single Age |
| MST01_64 | 522 | 2.66 | 4.16000 | 0.13000 | 0.29330 | 0.00740 | 0.61671 | 1665.0 | 25.0 | 1657.0 | 37.0 | 1721 | 35 | 1721.0 | 35.0 | 3.7 | Rim |
| MST01_64 | 193.3 | 0.42 | 8.10000 | 0.15000 | 0.39960 | 0.00660 | 0.77053 | 2245.0 | 16.0 | 2167.0 | 30.0 | 2330 | 19 | 2330.0 | 19.0 | 7.0 | Core |
| MST01_65 | 136 | 0.44 | 3.97500 | 0.04800 | 0.27420 | 0.00310 | 0.77852 | 1628.1 | 9.8 | 1562.0 | 16.0 | 1713 | 12 | 1713.0 | 12.0 | 8.8 | Single Age |
| MST01_66 | 94.6 | 0.71 | 4.49200 | 0.04500 | 0.30720 | 0.00280 | 0.69426 | 1728.8 | 8.3 | 1727.0 | 14.0 | 1731 | 14 | 1731.0 | 14.0 | 0.2 | Single Age |
| MST01_67 | 365 | 1.35 | 1.61600 | 0.01300 | 0.16310 | 0.00120 | 0.58035 | 977.3 | 5.0 | 974.7 | 6.6 | 993 | 15 | 993.0 | 15.0 | 1.8 | Single Age |
| MST01_68 | 219 | 0.70 | 1.13800 | 0.01300 | 0.12612 | 0.00086 | 0.19154 | 771.1 | 6.1 | 765.6 | 4.9 | 794 | 22 | 765.6 | 4.9 | 0.7 | Single Age |
| MST01_69 | -6.42523E-06 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| MST01_70 | 341.9 | 2.50 | 1.40400 | 0.04200 | 0.14240 | 0.00260 | 0.87290 | 890.0 | 18.0 | 858.0 | 15.0 | 971 | 36 | 971.0 | 36.0 | 11.6 | Rim |
| MST01_70 | 127.3 | 1.05 | 3.63700 | 0.05300 | 0.25680 | 0.00430 | 0.74806 | 1557.0 | 12.0 | 1473.0 | 22.0 | 1682 | 20 | 1682.0 | 20.0 | 12.4 | Core |
| MST01_71 | 125.6 | 0.59 | 1.20800 | 0.01500 | 0.13240 | 0.00140 | 0.60483 | 803.9 | 6.9 | 801.4 | 8.0 | 807 | 25 | 801.4 | 8.0 | 0.3 | Single Age |
| MST01_72 | 339 | 1.76 | 5.13500 | 0.03500 | 0.32680 | 0.00220 | 0.73988 | 1841.6 | 5.8 | 1823.0 | 11.0 | 1871 | 8 | 1870.8 | 8.4 | 2.6 | Single Age |
| MST01_73 | 245 | 0.61 | 1.29900 | 0.01500 | 0.14020 | 0.00160 | 0.60573 | 845.6 | 6.7 | 845.5 | 9.2 | 837 | 21 | 845.5 | 9.2 | 0.0 | Single Age |
| MST01_74 | 58.37 | 0.94 | 10.53500 | 0.08500 | 0.46080 | 0.00370 | 0.54879 | 2483.5 | 7.6 | 2443.0 | 16.0 | 2515 | 13 | 2515.0 | 13.0 | 2.9 | Single Age |
| MST01_75 | 28.97 | 0.61 | 10.48000 | 0.11000 | 0.46410 | 0.00520 | 0.30065 | 2477.1 | 9.3 | 2457.0 | 23.0 | 2505 | 21 | 2505.0 | 21.0 | 1.9 | Single Age |
| MST01_76 | 66.8 | 0.68 | 3.34200 | 0.08400 | 0.25850 | 0.00540 | 0.85400 | 1492.0 | 19.0 | 1486.0 | 29.0 | 1493 | 27 | 1493.0 | 27.0 | 0.5 | Single Age |
| MST01_77 | 69.3 | 0.67 | 2.18400 | 0.02600 | 0.18960 | 0.00210 | 0.35659 | 1175.3 | 8.2 | 1119.0 | 12.0 | 1281 | 26 | 1281.0 | 26.0 | 12.6 | Single Age |

Table 3 Outer Lesser Himalaya zircon U-Pb Results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MST01_78 | 101 | 0.32 | 4.39500 | 0.04500 | 0.30350 | 0.00380 | 0.62200 | 1711.9 | 8.7 | 1708.0 | 19.0 | 1719 | 18 | 1719.0 | 18.0 | 0.6 | Single Age |
| MST01_79 | 86.9 | 1.41 | 1.38300 | 0.02300 | 0.14420 | 0.00250 | 0.42018 | 881.0 | 9.8 | 868.0 | 14.0 | 891 | 38 | 891.0 | 38.0 | 2.6 | Single Age |
| MST01_80 | 29.5 | 0.33 | 9.49000 | 0.14000 | 0.42940 | 0.00560 | 0.70049 | 2386.0 | 13.0 | 2302.0 | 25.0 | 2456 | 16 | 2456.0 | 16.0 | 6.3 | Single Age |
| MST01_81 | 126 | 0.68 | 2.99000 | 0.13000 | 0.19930 | 0.00840 | 0.95909 | 1402.0 | 32.0 | 1175.0 | 44.0 | 1760 | 22 | DISC | DISC | 33.2 | Single Age |
| MST01_82 | 107.4 | 0.54 | 1.58200 | 0.01800 | 0.16090 | 0.00190 | 0.32917 | 962.5 | 7.2 | 961.0 | 11.0 | 966 | 28 | 966.0 | 28.0 | 0.5 | Single Age |
| MST01_83 | 64.6 | 0.89 | 9.40600 | 0.08300 | 0.43460 | 0.00470 | 0.56979 | 2379.0 | 8.4 | 2326.0 | 21.0 | 2415 | 16 | 2415.0 | 16.0 | 3.7 | Single Age |
| MST01_84 | 98.2 | 0.51 | 4.36200 | 0.05500 | 0.30370 | 0.00410 | 0.67376 | 1704.0 | 10.0 | 1709.0 | 20.0 | 1703 | 20 | 1703.0 | 20.0 | 0.4 | Single Age |
| MST01_85 | 65.5 | 2.59 | 5.74200 | 0.05500 | 0.33810 | 0.00340 | 0.70526 | 1937.1 | 8.3 | 1877.0 | 16.0 | 2006 | 12 | 2006.0 | 12.0 | 6.4 | Single Age |
| MST01_86 | 60.8 | 0.50 | 3.88500 | 0.06600 | 0.27060 | 0.00450 | 0.73191 | 1614.0 | 14.0 | 1543.0 | 23.0 | 1680 | 25 | 1680.0 | 25.0 | 8.2 | Single Age |
| MST01_87 | 175.2 | 0.61 | 1.17000 | 0.05300 | 0.12240 | 0.00160 | 0.51526 | 784.0 | 23.0 | 744.1 | 9.0 | 902 | 74 | 744.1 | 9.0 | 5.1 | Single Age |
| MST01_88 | 131 | 0.75 | 4.00000 | 0.11000 | 0.26410 | 0.00640 | 0.89525 | 1631.0 | 22.0 | 1510.0 | 33.0 | 1791 | 22 | 1791.0 | 22.0 | 15.7 | Single Age |
| MST01_89 | 251 | 2.42 | 4.77000 | 0.03400 | 0.31770 | 0.00300 | 0.67379 | 1779.4 | 6.1 | 1778.0 | 15.0 | 1780 | 13 | 1780.0 | 13.0 | 0.1 | Single Age |
| MST01_90 | 94.4 | 0.88 | 1.04500 | 0.01500 | 0.11450 | 0.00120 | 0.35158 | 725.9 | 7.5 | 699.0 | 6.9 | 802 | 32 | 699.0 | 6.9 | 3.7 | Single Age |
| MST01_91 | 93.9 | 0.61 | 9.92100 | 0.09400 | 0.43690 | 0.00390 | 0.80140 | 2429.1 | 8.7 | 2336.0 | 18.0 | 2500 | 11 | 2500.0 | 11.0 | 6.6 | Single Age |
| MST01_92 | 53.71 | 0.39 | 4.23700 | 0.04400 | 0.29080 | 0.00350 | 0.49146 | 1681.8 | 8.4 | 1645.0 | 17.0 | 1712 | 21 | 1712.0 | 21.0 | 3.9 | Single Age |
| MST01_93 | 77.6 | 0.47 | 1.34000 | 0.05300 | 0.11010 | 0.00230 | 0.13493 | 862.0 | 23.0 | 673.0 | 13.0 | 1342 | 70 | DISC | DISC | 21.9 | Single Age |
| MST01_94 | 34 | 0.57 | 4.56800 | 0.07100 | 0.30500 | 0.00450 | 0.64491 | 1742.0 | 13.0 | 1715.0 | 22.0 | 1756 | 22 | 1756.0 | 22.0 | 2.3 | Single Age |
| MST01_95 | 57.2 | 0.46 | 4.58300 | 0.07500 | 0.29240 | 0.00300 | 0.26245 | 1745.0 | 14.0 | 1653.0 | 15.0 | 1847 | 29 | 1847.0 | 29.0 | 10.5 | Single Age |
| MST01_96 | 142 | 0.92 | 1.13700 | 0.02000 | 0.12750 | 0.00190 | 0.70124 | 770.0 | 9.5 | 773.0 | 11.0 | 774 | 34 | 773.0 | 11.0 | 0.4 | Single Age |
| MST01_97 | 191 | 0.74 | 4.44800 | 0.04300 | 0.30140 | 0.00410 | 0.51741 | 1720.8 | 8.0 | 1698.0 | 20.0 | 1728 | 23 | 1728.0 | 23.0 | 1.7 | Single Age |
| MST01_99 | 35.02 | 0.67 | 4.46200 | 0.08500 | 0.29220 | 0.00540 | 0.38878 | 1723.0 | 16.0 | 1652.0 | 27.0 | 1809 | 34 | 1809.0 | 34.0 | 8.7 | Single Age |
| MST01_100 | 89 | 0.35 | 1.55800 | 0.02300 | 0.15860 | 0.00200 | 0.48088 | 952.8 | 9.1 | 949.0 | 11.0 | 951 | 26 | 951.0 | 26.0 | 0.2 | Single Age |
| MST01_101 | 130 | 0.41 | 3.60800 | 0.03100 | 0.26190 | 0.00170 | 0.34195 | 1550.8 | 6.8 | 1499.6 | 8.9 | 1610 | 17 | 1610.0 | 17.0 | 6.9 | Single Age |
| MST01_102 | 41.4 | 0.35 | 3.82300 | 0.06100 | 0.26430 | 0.00390 | 0.67658 | 1600.0 | 13.0 | 1512.0 | 20.0 | 1706 | 22 | 1706.0 | 22.0 | 11.4 | Single Age |
| MST01_103 | 70 | 0.90 | 5.01600 | 0.04600 | 0.32530 | 0.00330 | 0.46613 | 1821.4 | 7.8 | 1815.0 | 16.0 | 1817 | 19 | 1817.0 | 19.0 | 0.1 | Single Age |
| MST01_104 | 113.9 | 0.55 | 4.30900 | 0.04900 | 0.26510 | 0.00370 | 0.27737 | 1696.0 | 10.0 | 1515.0 | 19.0 | 1909 | 25 | 1909.0 | 25.0 | 20.6 | Single Age |
| MST01_105 | 145 | 0.50 | 4.39600 | 0.04300 | 0.30550 | 0.00270 | 0.73321 | 1711.0 | 8.1 | 1718.0 | 13.0 | 1701 | 14 | 1701.0 | 14.0 | 1.0 | Single Age |
| MST01_106 | 97 | 0.57 | 4.29200 | 0.04800 | 0.29570 | 0.00360 | 0.59122 | 1692.4 | 9.0 | 1670.0 | 18.0 | 1706 | 17 | 1706.0 | 17.0 | 2.1 | Single Age |
| MST01_107 | 251.1 | 1.00 | 2.17700 | 0.01700 | 0.19680 | 0.00130 | 0.43881 | 1173.6 | 5.4 | 1158.3 | 7.0 | 1207 | 14 | 1207.0 | 14.0 | 4.0 | Single Age |
| MST01_108 | 61.9 | 0.62 | 0.86800 | 0.02100 | 0.10240 | 0.00140 | 0.42623 | 635.0 | 11.0 | 628.6 | 8.1 | 644 | 43 | 628.6 | 8.1 | 1.0 | Single Age |
| MST01_109 | 61.6 | 0.55 | 4.21000 | 0.07100 | 0.28780 | 0.00460 | 0.64255 | 1675.0 | 14.0 | 1630.0 | 23.0 | 1710 | 30 | 1710.0 | 30.0 | 4.7 | Single Age |
| MST01_110 | 197 | 1.52 | 4.73600 | 0.02900 | 0.31000 | 0.00220 | 0.54016 | 1773.4 | 5.2 | 1740.0 | 11.0 | 1810 | 12 | 1810.0 | 12.0 | 3.9 | Single Age |
| MST01_111 | 238 | 1.16 | 1.10260 | 0.00750 | 0.12350 | 0.00110 | 0.55145 | 754.5 | 3.6 | 750.4 | 6.6 | 771 | 17 | 750.4 | 6.6 | 0.5 | Single Age |
| MST01_113 | 286.1 | 7.20 | 5.99400 | 0.05400 | 0.34800 | 0.00320 | 0.77090 | 1976.3 | 8.1 | 1925.0 | 15.0 | 2018 | 11 | 2018.0 | 11.0 | 4.6 | Single Age |
| MST01_114 | 71.4 | 1.13 | 4.26300 | 0.08600 | 0.28960 | 0.00510 | 0.62921 | 1685.0 | 17.0 | 1639.0 | 25.0 | 1740 | 33 | 1740.0 | 33.0 | 5.8 | Single Age |
| MST01_115 | 181.8 | 0.42 | 3.83000 | 0.03700 | 0.28110 | 0.00270 | 0.73375 | 1598.6 | 7.8 | 1597.0 | 13.0 | 1593 | 13 | 1593.0 | 13.0 | 0.3 | Single Age |
| MST01_116 | 103 | 0.46 | 4.56500 | 0.03700 | 0.30370 | 0.00270 | 0.67548 | 1742.6 | 6.7 | 1709.0 | 13.0 | 1767 | 14 | 1767.0 | 14.0 | 3.3 | Single Age |
| MST01_117 | 134.6 | 0.39 | 9.17000 | 0.10000 | 0.39520 | 0.00400 | 0.87065 | 2354.0 | 10.0 | 2147.0 | 18.0 | 2524 | 9 | 2524.0 | 8.9 | 14.9 | Single Age |
| MST01_118 | 157.8 | 1.56 | 10.64000 | 0.13000 | 0.46410 | 0.00720 | 0.67198 | 2491.0 | 12.0 | 2461.0 | 31.0 | 2524 | 20 | 2524.0 | 20.0 | 2.5 | Single Age |
| MST01_119 | 106 | 0.33 | 3.36500 | 0.04200 | 0.22770 | 0.00250 | 0.58546 | 1495.6 | 9.7 | 1322.0 | 13.0 | 1743 | 23 | 1743.0 | 23.0 | 24.2 | Single Age |
| MST01_120 | 128 | 1.03 | 5.06700 | 0.03900 | 0.32490 | 0.00310 | 0.68826 | 1831.1 | 6.5 | 1813.0 | 15.0 | 1848 | 12 | 1848.0 | 12.0 | 1.9 | Single Age |
| KD1_1 | 93.5 | 3.38 | 9.90000 | 0.16000 | 0.43740 | 0.00750 | 0.75169 | 2424.0 | 15.0 | 2342.0 | 34.0 | 2489 | 20 | 2489.0 | 20.0 | 5.9 | Single Age |

Table 3 Outer Lesser Himalaya zircon U-Pb Results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KD1_2 | 128 | 1.31 | 0.68800 | 0.02000 | 0.08280 | 0.00140 | 0.21925 | 532.0 | 12.0 | 512.5 | 8.3 | 613 | 61 | 512.5 | 8.3 | 3.7 | Single Age |
| KD1_3 | 30.7 | 1.87 | 1.18900 | 0.03700 | 0.12940 | 0.00290 | 0.30199 | 795.0 | 17.0 | 784.0 | 17.0 | 816 | 67 | 784.0 | 17.0 | 1.4 | Single Age |
| KD1_4 | 95.3 | 0.94 | 9.37000 | 0.12000 | 0.42430 | 0.00540 | 0.80268 | 2374.0 | 12.0 | 2279.0 | 24.0 | 2450 | 15 | 2450.0 | 15.0 | 7.0 | Single Age |
| KD1_5 | 35.1 | 0.59 | 1.15000 | 0.04000 | 0.12270 | 0.00240 | 0.07321 | 774.0 | 19.0 | 746.0 | 14.0 | 829 | 86 | 746.0 | 14.0 | 3.6 | Single Age |
| KD1_6 | 87.2 | 0.69 | 4.33000 | 0.06400 | 0.28590 | 0.00430 | 0.57713 | 1699.0 | 13.0 | 1621.0 | 22.0 | 1777 | 25 | 1777.0 | 25.0 | 8.8 | Single Age |
| KD1_7 | 256.7 | 0.66 | 9.50900 | 0.07400 | 0.42310 | 0.00420 | 0.71241 | 2388.0 | 7.2 | 2274.0 | 19.0 | 2479 | 11 | 2479.0 | 11.0 | 8.3 | Single Age |
| KD1_8 | 172 | 1.08 | 4.47800 | 0.06700 | 0.30370 | 0.00460 | 0.69798 | 1726.0 | 12.0 | 1709.0 | 23.0 | 1718 | 22 | 1718.0 | 22.0 | 0.5 | Single Age |
| KD1_9 | 365 | 2.07 | 4.20200 | 0.03900 | 0.28610 | 0.00290 | 0.78430 | 1674.9 | 7.7 | 1622.0 | 15.0 | 1720 | 12 | 1720.0 | 12.0 | 5.7 | Single Age |
| KD1_10 | 139 | 5.56 | 1.19900 | 0.01800 | 0.13100 | 0.00150 | 0.32054 | 799.2 | 8.3 | 793.5 | 8.3 | 816 | 33 | 793.5 | 8.3 | 0.7 | Single Age |
| KD1_11 | 323 | 1.47 | 10.20000 | 0.14000 | 0.46460 | 0.00790 | 0.73127 | 2452.0 | 13.0 | 2459.0 | 35.0 | 2445 | 20 | 2445.0 | 20.0 | 0.6 | Single Age |
| KD1_12 | 106.4 | 0.66 | 3.74800 | 0.04600 | 0.26620 | 0.00390 | 0.46977 | 1581.1 | 9.9 | 1521.0 | 20.0 | 1654 | 25 | 1654.0 | 25.0 | 8.0 | Single Age |
| KD1_13 | 457 | 5.86 | 1.49900 | 0.02300 | 0.15580 | 0.00230 | 0.73604 | 930.6 | 9.1 | 933.0 | 13.0 | 938 | 23 | 938.0 | 23.0 | 0.5 | Single Age |
| KD1_14 | 713 | 1.00 | 1.98000 | 0.01800 | 0.18350 | 0.00170 | 0.75057 | 1108.4 | 6.1 | 1085.9 | 9.5 | 1156 | 15 | 1156.0 | 15.0 | 6.1 | Single Age |
| KD1_15 | 203.5 | 0.96 | 15.41000 | 0.17000 | 0.51500 | 0.00590 | 0.76645 | 2840.0 | 11.0 | 2677.0 | 25.0 | 2961 | 14 | 2961.0 | 14.0 | 9.6 | Single Age |
| KD1_16 | 215 | 0.66 | 4.23600 | 0.04200 | 0.29300 | 0.00260 | 0.56761 | 1680.5 | 8.2 | 1656.0 | 13.0 | 1720 | 17 | 1720.0 | 17.0 | 3.7 | Single Age |
| KD1_17 | 217.8 | 1.10 | 10.41300 | 0.07600 | 0.45150 | 0.00350 | 0.58222 | 2471.7 | 6.8 | 2402.0 | 16.0 | 2531 | 11 | 2531.0 | 11.0 | 5.1 | Single Age |
| KD1_18 | 279 | 0.65 | 4.08800 | 0.04300 | 0.28170 | 0.00240 | 0.47349 | 1652.6 | 8.8 | 1600.0 | 12.0 | 1711 | 20 | 1711.0 | 20.0 | 6.5 | Single Age |
| KD1_19 | 247 | 6.10 | 4.98300 | 0.04500 | 0.31540 | 0.00310 | 0.60652 | 1816.0 | 7.7 | 1767.0 | 15.0 | 1857 | 15 | 1857.0 | 15.0 | 4.8 | Single Age |
| KD1_20 | 732 | 1.46 | 4.38600 | 0.08100 | 0.28770 | 0.00660 | 0.73633 | 1712.0 | 16.0 | 1630.0 | 33.0 | 1802 | 23 | 1802.0 | 23.0 | 9.5 | Single Age |
| KD1_21 | 154.5 | 1.95 | 3.60500 | 0.06000 | 0.27120 | 0.00530 | 0.68671 | 1549.0 | 13.0 | 1546.0 | 27.0 | 1568 | 29 | 1568.0 | 29.0 | 1.4 | Single Age |
| KD1_22 | 152 | 1.37 | 0.86300 | 0.01600 | 0.09920 | 0.00150 | 0.21644 | 630.9 | 9.0 | 611.0 | 8.3 | 723 | 41 | 611.0 | 8.3 | 3.2 | Single Age |
| KD1_23 | 48.6 | 0.55 | 3.47600 | 0.06800 | 0.24340 | 0.00510 | 0.40281 | 1520.0 | 15.0 | 1403.0 | 27.0 | 1688 | 35 | 1688.0 | 35.0 | 16.9 | Single Age |
| KD1_24 | 572 | 1.11 | 3.86200 | 0.04300 | 0.26830 | 0.00320 | 0.75734 | 1606.4 | 8.9 | 1532.0 | 16.0 | 1713 | 13 | 1713.0 | 13.0 | 10.6 | Single Age |
| KD1_25 | 163 | 0.66 | 1.09100 | 0.01900 | 0.12120 | 0.00140 | 0.13482 | 750.9 | 9.3 | 737.3 | 8.1 | 782 | 42 | 737.3 | 8.1 | 1.8 | Single Age |
| KD1_26 | 259 | 1.82 | 5.14400 | 0.04700 | 0.33180 | 0.00330 | 0.66662 | 1842.9 | 7.7 | 1847.0 | 16.0 | 1852 | 15 | 1852.0 | 15.0 | 0.3 | Single Age |
| KD1_27 | 811 | 3.16 | 1.54300 | 0.01100 | 0.15610 | 0.00130 | 0.58986 | 947.4 | 4.5 | 935.2 | 7.2 | 984 | 14 | 984.0 | 14.0 | 5.0 | Single Age |
| KD1_28 | 403 | 1.25 | 2.02400 | 0.02300 | 0.18640 | 0.00210 | 0.54924 | 1123.1 | 7.8 | 1102.0 | 11.0 | 1181 | 20 | 1181.0 | 20.0 | 6.7 | Single Age |
| KD1_29 | 146.7 | 1.22 | 4.85300 | 0.05000 | 0.31900 | 0.00370 | 0.53516 | 1793.6 | 8.7 | 1784.0 | 18.0 | 1813 | 20 | 1813.0 | 20.0 | 1.6 | Single Age |
| KD1_30 | 82 | 1.68 | 1.18300 | 0.03000 | 0.12830 | 0.00190 | 0.42406 | 793.0 | 14.0 | 778.0 | 11.0 | 858 | 49 | 778.0 | 11.0 | 1.9 | Single Age |
| KD1_31 | 347 | 0.71 | 10.21700 | 0.08600 | 0.46030 | 0.00380 | 0.74007 | 2456.0 | 7.8 | 2441.0 | 17.0 | 2471 | 10 | 2471.0 | 10.0 | 1.2 | Single Age |
| KD1_32 | 546 | 3.91 | 4.49600 | 0.05000 | 0.30030 | 0.00310 | 0.68602 | 1729.7 | 9.3 | 1692.0 | 15.0 | 1794 | 15 | 1794.0 | 15.0 | 5.7 | Single Age |
| KD1_33 | 107.3 | 1.23 | 1.57200 | 0.02500 | 0.15930 | 0.00170 | 0.17110 | 958.0 | 10.0 | 952.9 | 9.3 | 981 | 38 | 981.0 | 38.0 | 2.9 | Single Age |
| KD1_34 | 192 | 1.74 | 4.27000 | 0.07600 | 0.30230 | 0.00550 | 0.77572 | 1686.0 | 15.0 | 1712.0 | 26.0 | 1696 | 22 | 1696.0 | 22.0 | 0.9 | Single Age |
| KD1_35 | 97.9 | 1.87 | 4.61300 | 0.05300 | 0.30370 | 0.00310 | 0.53931 | 1750.8 | 9.8 | 1709.0 | 15.0 | 1808 | 20 | 1808.0 | 20.0 | 5.5 | Single Age |
| KD1_36 | 116.6 | 2.39 | 12.22000 | 0.18000 | 0.45980 | 0.00760 | 0.77273 | 2623.0 | 13.0 | 2438.0 | 33.0 | 2776 | 18 | 2776.0 | 18.0 | 12.2 | Single Age |
| KD1_37 | 173.9 | 0.97 | 10.20300 | 0.07500 | 0.44570 | 0.00350 | 0.72126 | 2452.9 | 6.8 | 2376.0 | 16.0 | 2521 | 10 | 2521.0 | 10.0 | 5.8 | Single Age |
| KD1_38 | 55.3 | 0.38 | 10.30000 | 0.14000 | 0.44640 | 0.00560 | 0.60591 | 2460.0 | 12.0 | 2381.0 | 25.0 | 2524 | 17 | 2524.0 | 17.0 | 5.7 | Single Age |
| KD1_39 | 266 | 1.14 | 4.49500 | 0.04000 | 0.30530 | 0.00320 | 0.56583 | 1729.7 | 7.4 | 1717.0 | 16.0 | 1768 | 19 | 1768.0 | 19.0 | 2.9 | Single Age |
| KD1_40 | 627 | 50.00 | 1.64400 | 0.05200 | 0.16640 | 0.00460 | 0.64530 | 987.0 | 20.0 | 992.0 | 25.0 | 1006 | 52 | 1006.0 | 52.0 | 1.4 | Rim |
| KD1_40 | 223.4 | 1.01 | 4.41900 | 0.07200 | 0.29710 | 0.00540 | 0.44643 | 1715.0 | 13.0 | 1676.0 | 27.0 | 1764 | 29 | 1764.0 | 29.0 | 5.0 | Core |
| KD1_41 | 106 | 0.92 | 9.23700 | 0.09300 | 0.41580 | 0.00580 | 0.55848 | 2361.3 | 9.3 | 2241.0 | 26.0 | 2481 | 21 | 2481.0 | 21.0 | 9.7 | Single Age |
| KD1_42 | 95 | 0.52 | 3.61000 | 0.05400 | 0.25210 | 0.00380 | 0.75510 | 1552.0 | 12.0 | 1449.0 | 20.0 | 1692 | 23 | 1692.0 | 23.0 | 14.4 | Single Age |

Table 3 Outer Lesser Himalaya zircon U-Pb Results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KD1_43 | 131 | 0.88 | 4.15900 | 0.05100 | 0.28920 | 0.00310 | 0.52853 | 1665.0 | 10.0 | 1637.0 | 15.0 | 1715 | 22 | 1715.0 | 22.0 | 4.5 | Single Age |
| KD1_44 | 1130 | 68.70 | 1.54300 | 0.02800 | 0.16010 | 0.00270 | 0.70199 | 947.0 | 11.0 | 957.0 | 15.0 | 941 | 20 | 941.0 | 20.0 | 1.7 | Single Age |
| KD1_45 | 67.9 | 0.50 | 9.60000 | 0.12000 | 0.43080 | 0.00550 | 0.69853 | 2396.0 | 11.0 | 2312.0 | 24.0 | 2474 | 16 | 2474.0 | 16.0 | 6.5 | Single Age |
| KD1_46 | 18.8 | 2.64 | 5.96000 | 0.22000 | 0.25610 | 0.00910 | 0.57722 | 1967.0 | 32.0 | 1469.0 | 47.0 | 2527 | 57 | DISC | DISC | 41.9 | Single Age |
| KD1_47 | 54.2 | 0.49 | 4.10000 | 0.05700 | 0.28650 | 0.00350 | 0.25524 | 1657.0 | 11.0 | 1624.0 | 18.0 | 1693 | 29 | 1693.0 | 29.0 | 4.1 | Single Age |
| KD1_48 | 295 | 0.44 | 4.38700 | 0.06300 | 0.29940 | 0.00460 | 0.74087 | 1711.0 | 12.0 | 1692.0 | 22.0 | 1730 | 22 | 1730.0 | 22.0 | 2.2 | Single Age |
| KD1_49 | 602 | 2.28 | 1.54900 | 0.01400 | 0.15870 | 0.00150 | 0.67519 | 949.8 | 5.7 | 949.4 | 8.3 | 975 | 19 | 975.0 | 19.0 | 2.6 | Single Age |
| KD1_50 | 105.9 | 1.59 | 0.79800 | 0.01900 | 0.09320 | 0.00130 | 0.17267 | 596.0 | 11.0 | 574.4 | 7.9 | 683 | 50 | 574.4 | 7.9 | 3.6 | Single Age |
| KD1_51 | 212.4 | 0.70 | 1.51400 | 0.02100 | 0.15460 | 0.00180 | 0.50312 | 935.4 | 8.4 | 926.4 | 9.9 | 963 | 26 | 963.0 | 26.0 | 3.8 | Single Age |
| KD1_52 | 243.6 | 1.43 | 4.27600 | 0.03900 | 0.29610 | 0.00280 | 0.48824 | 1690.2 | 7.5 | 1672.0 | 14.0 | 1720 | 16 | 1720.0 | 16.0 | 2.8 | Single Age |
| KD1_53 | 183 | 0.60 | 10.44500 | 0.09400 | 0.46470 | 0.00480 | 0.50257 | 2474.7 | 8.4 | 2460.0 | 21.0 | 2495 | 20 | 2495.0 | 20.0 | 1.4 | Single Age |
| KD1_54 | 147.3 | 0.96 | 4.70100 | 0.05600 | 0.31550 | 0.00360 | 0.27820 | 1769.7 | 9.9 | 1767.0 | 18.0 | 1776 | 29 | 1776.0 | 29.0 | 0.5 | Single Age |
| KD1_55 | 96.2 | 0.81 | 10.08200 | 0.09800 | 0.44160 | 0.00410 | 0.54558 | 2441.6 | 9.0 | 2360.0 | 18.0 | 2521 | 15 | 2521.0 | 15.0 | 6.4 | Single Age |
| KD1_56 | 110.3 | 1.69 | 18.64000 | 0.17000 | 0.59840 | 0.00720 | 0.58534 | 3022.7 | 8.7 | 3022.0 | 29.0 | 3024 | 17 | 3024.0 | 17.0 | 0.1 | Single Age |
| KD1_57 | 113.5 | 0.88 | 3.75800 | 0.04900 | 0.27710 | 0.00350 | 0.60969 | 1583.0 | 10.0 | 1576.0 | 17.0 | 1605 | 20 | 1605.0 | 20.0 | 1.8 | Single Age |
| KD1_58 | 385 | 1.68 | 1.24300 | 0.01400 | 0.13560 | 0.00140 | 0.44779 | 819.8 | 6.5 | 820.6 | 7.8 | 820 | 23 | 820.6 | 7.8 | 0.1 | Single Age |
| KD1_59 | 280 | 1.55 | 8.02500 | 0.08700 | 0.38330 | 0.00420 | 0.77345 | 2233.1 | 9.9 | 2091.0 | 20.0 | 2370 | 14 | 2370.0 | 14.0 | 11.8 | Single Age |
| KD1_60 | 357 | 4.27 | 2.91700 | 0.07500 | 0.21730 | 0.00600 | 0.76700 | 1386.0 | 19.0 | 1266.0 | 32.0 | 1567 | 37 | 1567.0 | 37.0 | 19.2 | Single Age |
| KD1_61 | 83.1 | 1.31 | 1.15900 | 0.02600 | 0.12190 | 0.00190 | 0.38697 | 780.0 | 12.0 | 741.0 | 11.0 | 907 | 41 | 741.0 | 11.0 | 5.0 | Single Age |
| KD1_62 | 158 | 1.04 | 8.40000 | 0.27000 | 0.37300 | 0.01200 | 0.94199 | 2273.0 | 30.0 | 2038.0 | 58.0 | 2489 | 19 | 2489.0 | 19.0 | 18.1 | Single Age |
| KD1_63 | 208.9 | 0.99 | 9.80400 | 0.07000 | 0.42960 | 0.00380 | 0.61789 | 2417.0 | 6.5 | 2303.0 | 17.0 | 2514 | 11 | 2514.0 | 11.0 | 8.4 | Single Age |
| KD1_65 | 126 | 1.12 | 9.58000 | 0.11000 | 0.42320 | 0.00520 | 0.68974 | 2395.0 | 10.0 | 2274.0 | 23.0 | 2507 | 17 | 2507.0 | 17.0 | 9.3 | Single Age |
| KD1_66 | 167 | 1.79 | 11.28000 | 0.12000 | 0.46780 | 0.00570 | 0.65645 | 2546.0 | 10.0 | 2473.0 | 25.0 | 2611 | 17 | 2611.0 | 17.0 | 5.3 | Single Age |
| KD1_67 | 347 | 1.22 | 3.62100 | 0.03900 | 0.26580 | 0.00350 | 0.76791 | 1553.6 | 8.5 | 1519.0 | 18.0 | 1587 | 17 | 1587.0 | 17.0 | 4.3 | Single Age |
| KD1_68 | 424 | 1.14 | 4.85400 | 0.03600 | 0.31220 | 0.00270 | 0.60930 | 1795.4 | 6.1 | 1751.0 | 13.0 | 1850 | 12 | 1850.0 | 12.0 | 5.4 | Single Age |
| KD1_69 | 279 | 2.20 | 12.04000 | 0.14000 | 0.49910 | 0.00640 | 0.83079 | 2607.0 | 11.0 | 2610.0 | 28.0 | 2611 | 20 | 2611.0 | 20.0 | 0.0 | Single Age |
| KD1_70 | 130 | 1.03 | 6.29400 | 0.08500 | 0.35490 | 0.00490 | 0.78126 | 2020.0 | 12.0 | 1957.0 | 23.0 | 2093 | 16 | 2093.0 | 16.0 | 6.5 | Single Age |
| KD1_71 | 145.5 | 0.71 | 3.44200 | 0.06800 | 0.25160 | 0.00560 | 0.82833 | 1515.0 | 16.0 | 1446.0 | 29.0 | 1604 | 22 | 1604.0 | 22.0 | 9.9 | Single Age |
| KD1_72 | 172 | 1.86 | 1.17100 | 0.01800 | 0.12620 | 0.00190 | 0.26223 | 787.3 | 8.6 | 766.0 | 11.0 | 855 | 38 | 766.0 | 11.0 | 2.7 | Single Age |
| KD1_73 | 1207 | 8.75 | 4.40600 | 0.04600 | 0.29290 | 0.00300 | 0.80732 | 1712.8 | 8.6 | 1656.0 | 15.0 | 1773 | 11 | 1773.0 | 11.0 | 6.6 | Single Age |
| KD1_74 | 164.3 | 0.59 | 4.18400 | 0.03400 | 0.28370 | 0.00220 | 0.21610 | 1670.5 | 6.6 | 1611.0 | 11.0 | 1742 | 19 | 1742.0 | 19.0 | 7.5 | Single Age |
| KD1_75 | 127.8 | 0.93 | 3.88600 | 0.04000 | 0.27140 | 0.00300 | 0.39224 | 1610.1 | 8.3 | 1548.0 | 15.0 | 1683 | 21 | 1683.0 | 21.0 | 8.0 | Single Age |
| KD1_76 | 153.2 | 1.26 | 4.63800 | 0.05200 | 0.30980 | 0.00300 | 0.45089 | 1755.4 | 9.4 | 1739.0 | 15.0 | 1774 | 20 | 1774.0 | 20.0 | 2.0 | Single Age |
| KD1_77 | 132 | 1.29 | 4.27900 | 0.05000 | 0.29080 | 0.00450 | 0.68126 | 1690.0 | 9.9 | 1645.0 | 23.0 | 1743 | 21 | 1743.0 | 21.0 | 5.6 | Single Age |
| KD1_78 | 99.3 | 1.03 | 10.08000 | 0.13000 | 0.44050 | 0.00590 | 0.72786 | 2444.0 | 12.0 | 2352.0 | 26.0 | 2494 | 20 | 2494.0 | 20.0 | 5.7 | Single Age |
| KD1_79 | 60.1 | 0.58 | 3.87700 | 0.06500 | 0.26370 | 0.00370 | 0.40285 | 1608.0 | 14.0 | 1508.0 | 19.0 | 1720 | 29 | 1720.0 | 29.0 | 12.3 | Single Age |
| KD1_80 | 182.9 | 1.19 | 1.16100 | 0.01500 | 0.12480 | 0.00130 | 0.41324 | 782.0 | 7.2 | 758.0 | 7.2 | 840 | 27 | 758.0 | 7.2 | 3.1 | Single Age |
| KD1_81 | 275.7 | 0.68 | 8.29300 | 0.08900 | 0.37340 | 0.00420 | 0.20012 | 2265.0 | 9.4 | 2045.0 | 19.0 | 2470 | 23 | 2470.0 | 23.0 | 17.2 | Single Age |
| KD1_82 | 403 | 4.05 | 1.66500 | 0.06100 | 0.16500 | 0.00600 | 0.78696 | 993.0 | 23.0 | 984.0 | 33.0 | 1011 | 49 | 1011.0 | 49.0 | 2.7 | Single Age |
| KD1_83 | 555 | 2.89 | 3.60100 | 0.09100 | 0.25360 | 0.00650 | 0.91600 | 1549.0 | 20.0 | 1457.0 | 33.0 | 1660 | 23 | 1660.0 | 23.0 | 12.2 | Single Age |
| KD1_84 | 521.4 | 3.94 | 4.49200 | 0.05900 | 0.27980 | 0.00470 | 0.76356 | 1729.0 | 11.0 | 1590.0 | 24.0 | 1896 | 24 | 1896.0 | 24.0 | 16.1 | Single Age |
| KD1_85 | 346 | 0.86 | 4.00500 | 0.06100 | 0.28400 | 0.00500 | 0.68393 | 1634.0 | 13.0 | 1611.0 | 25.0 | 1661 | 27 | 1661.0 | 27.0 | 3.0 | Single Age |

Table 3 Outer Lesser Himalaya zircon U-Pb Results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KD1_86 | 319.3 | 1.63 | 11.19700 | 0.09700 | 0.47030 | 0.00490 | 0.56399 | 2539.3 | 8.0 | 2484.0 | 21.0 | 2586 | 17 | 2586.0 | 17.0 | 3.9 | Single Age |
| KD1_87 | 285 | 2.09 | 4.39400 | 0.03700 | 0.28910 | 0.00270 | 0.54778 | 1710.9 | 6.9 | 1637.0 | 14.0 | 1790 | 17 | 1790.0 | 17.0 | 8.5 | Single Age |
| KD1_88 | 99.7 | 1.67 | 4.59100 | 0.05100 | 0.31380 | 0.00360 | 0.58970 | 1749.5 | 9.2 | 1759.0 | 18.0 | 1730 | 20 | 1730.0 | 20.0 | 1.7 | Single Age |
| KD1_89 | 204.7 | 1.26 | 4.15200 | 0.04600 | 0.28240 | 0.00270 | 0.38985 | 1664.0 | 9.1 | 1603.0 | 13.0 | 1735 | 20 | 1735.0 | 20.0 | 7.6 | Single Age |
| KD1_90 | 1030 | 4.26 | 3.38500 | 0.08000 | 0.23640 | 0.00490 | 0.86238 | 1499.0 | 19.0 | 1367.0 | 25.0 | 1697 | 21 | 1697.0 | 21.0 | 19.4 | Single Age |
| KD1_91 | 125 | 0.82 | 3.96700 | 0.06800 | 0.27710 | 0.00520 | 0.73060 | 1628.0 | 14.0 | 1579.0 | 26.0 | 1703 | 22 | 1703.0 | 22.0 | 7.3 | Single Age |
| KD1_92 | 218.4 | 1.25 | 1.17000 | 0.02400 | 0.12880 | 0.00240 | 0.46331 | 786.0 | 11.0 | 781.0 | 13.0 | 843 | 35 | 781.0 | 13.0 | 0.6 | Single Age |
| KD1_93 | 746 | 1.69 | 9.94500 | 0.06200 | 0.43990 | 0.00340 | 0.62380 | 2429.4 | 5.8 | 2352.0 | 15.0 | 2493 | 10 | 2493.0 | 10.0 | 5.7 | Single Age |
| KD1_94 | 94 | 0.85 | 2.95000 | 0.03800 | 0.22920 | 0.00260 | 0.51304 | 1393.9 | 9.7 | 1330.0 | 13.0 | 1518 | 24 | 1518.0 | 24.0 | 12.4 | Single Age |
| KD1_95 | 158.3 | 0.49 | 9.84900 | 0.08600 | 0.43610 | 0.00410 | 0.48204 | 2420.3 | 8.0 | 2333.0 | 19.0 | 2491 | 16 | 2491.0 | 16.0 | 6.3 | Single Age |
| KD1_96 | 91.2 | 0.72 | 4.34700 | 0.04000 | 0.29790 | 0.00270 | 0.36068 | 1703.9 | 7.6 | 1681.0 | 13.0 | 1725 | 20 | 1725.0 | 20.0 | 2.6 | Single Age |
| KD1_97 | 171.8 | 1.17 | 4.21800 | 0.03800 | 0.28220 | 0.00300 | 0.51171 | 1677.0 | 7.4 | 1602.0 | 15.0 | 1775 | 17 | 1775.0 | 17.0 | 9.7 | Single Age |
| KD1_98 | 312 | 2.20 | 10.11800 | 0.09900 | 0.45190 | 0.00490 | 0.63154 | 2446.9 | 8.8 | 2403.0 | 22.0 | 2480 | 16 | 2480.0 | 16.0 | 3.1 | Single Age |
| KD1_99 | 743 | 0.97 | 1.12200 | 0.02900 | 0.12100 | 0.00350 | 0.90245 | 763.0 | 14.0 | 740.0 | 21.0 | 846 | 21 | 740.0 | 21.0 | 3.0 | Single Age |
| KD1_100 | 167.1 | 0.49 | 10.08900 | 0.07600 | 0.44970 | 0.00460 | 0.52530 | 2442.5 | 6.9 | 2394.0 | 21.0 | 2482 | 16 | 2482.0 | 16.0 | 3.5 | Single Age |
| KD1_101 | 207 | 1.55 | 1.56300 | 0.02400 | 0.15910 | 0.00210 | 0.49332 | 954.7 | 9.4 | 952.0 | 12.0 | 973 | 27 | 973.0 | 27.0 | 2.2 | Single Age |
| KD1_102 | 943 | 1.56 | 1.47200 | 0.01100 | 0.14960 | 0.00120 | 0.73555 | 919.0 | 4.5 | 898.4 | 6.6 | 980 | 13 | 980.0 | 13.0 | 8.3 | Single Age |
| KD1_103 | 368 | 8.59 | 4.30300 | 0.02900 | 0.29820 | 0.00240 | 0.77787 | 1693.7 | 5.5 | 1684.0 | 12.0 | 1711 | 14 | 1711.0 | 14.0 | 1.6 | Single Age |
| KD1_104 | 99.3 | 8.20 | 20.77000 | 0.30000 | 0.61970 | 0.00770 | 0.47685 | 3129.0 | 14.0 | 3108.0 | 31.0 | 3162 | 23 | 3162.0 | 23.0 | 1.7 | Single Age |
| KD1_105 | 529 | 2.48 | 1.53400 | 0.01300 | 0.15560 | 0.00120 | 0.53537 | 943.7 | 5.1 | 932.4 | 6.5 | 980 | 16 | 980.0 | 16.0 | 4.9 | Single Age |
| KD1_106 | 174 | 1.76 | 1.20200 | 0.01700 | 0.13150 | 0.00140 | 0.30941 | 801.1 | 7.9 | 796.1 | 8.1 | 805 | 32 | 796.1 | 8.1 | 0.6 | Single Age |
| KD1_107 | 181 | 0.51 | 1.54200 | 0.01800 | 0.15660 | 0.00150 | 0.19908 | 946.6 | 7.2 | 937.5 | 8.1 | 988 | 26 | 988.0 | 26.0 | 5.1 | Single Age |
| KD1_109 | 268 | 0.39 | 4.45600 | 0.03100 | 0.30610 | 0.00260 | 0.55513 | 1722.6 | 5.8 | 1721.0 | 13.0 | 1732 | 12 | 1732.0 | 12.0 | 0.6 | Single Age |
| KD1_110 | 400 | 5.98 | 1.37600 | 0.01200 | 0.14450 | 0.00130 | 0.52775 | 878.5 | 4.9 | 869.9 | 7.4 | 917 | 18 | 917.0 | 18.0 | 5.1 | Single Age |
| KD1_111 | 74.8 | 0.95 | 3.70600 | 0.04100 | 0.27390 | 0.00330 | 0.48839 | 1572.0 | 8.8 | 1560.0 | 17.0 | 1600 | 23 | 1600.0 | 23.0 | 2.5 | Single Age |
| KD1_112 | 342 | 0.59 | 0.77830 | 0.00820 | 0.09120 | 0.00110 | 0.25499 | 584.9 | 4.6 | 562.5 | 6.6 | 673 | 30 | 562.5 | 6.6 | 3.8 | Single Age |
| KD1_113 | 44.7 | 1.48 | 2.26700 | 0.04900 | 0.17600 | 0.00370 | 0.45800 | 1202.0 | 16.0 | 1050.0 | 20.0 | 1484 | 45 | 1484.0 | 45.0 | 29.2 | Single Age |
| KD1_114 | 1270 | 2.09 | 1.04830 | 0.00930 | 0.11300 | 0.00099 | 0.61678 | 727.8 | 4.6 | 690.1 | 5.7 | 854 | 16 | 690.1 | 5.7 | 5.2 | Single Age |
| KD1_115 | 32.61 | 0.89 | 9.89000 | 0.13000 | 0.44170 | 0.00560 | 0.61358 | 2424.0 | 12.0 | 2360.0 | 26.0 | 2485 | 19 | 2485.0 | 19.0 | 5.0 | Single Age |
| KD1_116 | 203 | 2.60 | 1.63000 | 0.02000 | 0.16090 | 0.00200 | 0.33260 | 981.4 | 7.6 | 961.0 | 11.0 | 1021 | 28 | 1021.0 | 28.0 | 5.9 | Single Age |
| KD1_117 | 18.98 | 0.53 | 8.91000 | 0.28000 | 0.38400 | 0.01400 | 0.53008 | 2327.0 | 28.0 | 2091.0 | 63.0 | 2563 | 57 | 2563.0 | 57.0 | 18.4 | Single Age |
| KD1_118 | 32.8 | 2.33 | 2.94400 | 0.06400 | 0.22630 | 0.00420 | 0.21853 | 1392.0 | 17.0 | 1315.0 | 22.0 | 1507 | 50 | 1507.0 | 50.0 | 12.7 | Single Age |
| KD1_119 | 141.9 | 1.08 | 2.57600 | 0.03900 | 0.22350 | 0.00250 | 0.66027 | 1293.0 | 11.0 | 1300.0 | 13.0 | 1295 | 20 | 1295.0 | 20.0 | 0.4 | Single Age |
| KD1_120 | 67.56 | 0.36 | 4.40900 | 0.05900 | 0.29210 | 0.00370 | 0.55658 | 1714.0 | 11.0 | 1652.0 | 19.0 | 1784 | 24 | 1784.0 | 24.0 | 7.4 | Single Age |
| MGT_01_1 | 24.98 | 0.82 | 5.77000 | 0.11000 | 0.33650 | 0.00630 | 0.48539 | 1939.0 | 17.0 | 1873.0 | 29.0 | 2002 | 37 | 2002.0 | 37.0 | 6.4 | Single Age |
| MGT_01_3 | 105.5 | 0.68 | 1.41000 | 0.01800 | 0.14980 | 0.00170 | 0.27564 | 892.7 | 7.4 | 899.5 | 9.3 | 884 | 30 | 884.0 | 30.0 | 1.8 | Single Age |
| MGT_01_4 | 49.2 | 0.72 | 0.73000 | 0.03300 | 0.08410 | 0.00220 | 0.42867 | 559.0 | 18.0 | 520.0 | 13.0 | 738 | 89 | 520.0 | 13.0 | 7.0 | Single Age |
| MGT_01_5 | 129.3 | 0.98 | 13.57600 | 0.09800 | 0.52560 | 0.00420 | 0.52128 | 2720.1 | 6.8 | 2723.0 | 18.0 | 2711 | 11 | 2711.0 | 11.0 | 0.4 | Single Age |
| MGT_01_6 | 88.7 | 0.66 | 0.77800 | 0.01800 | 0.09580 | 0.00200 | 0.52357 | 583.0 | 10.0 | 589.0 | 12.0 | 556 | 44 | 589.0 | 12.0 | 1.0 | Single Age |
| MGT_01_7 | 543 | 2.35 | 1.55900 | 0.04500 | 0.15800 | 0.00550 | 0.71924 | 952.0 | 18.0 | 945.0 | 30.0 | 958 | 54 | 958.0 | 54.0 | 1.4 | Single Age |
| MGT_01_8 | 80.1 | 0.37 | 0.74300 | 0.01500 | 0.09310 | 0.00180 | 0.25092 | 563.5 | 8.9 | 574.0 | 11.0 | 549 | 55 | 574.0 | 11.0 | 1.9 | Single Age |
| MGT_01_9 | 336 | 4.83 | 1.20900 | 0.01900 | 0.12940 | 0.00160 | 0.61200 | 805.4 | 8.8 | 786.0 | 9.5 | 848 | 26 | 786.0 | 9.5 | 2.4 | Single Age |

Table 3 Outer Lesser Himalaya zircon U-Pb Results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MGT_01_10 | 68.3 | 1.76 | 0.66700 | 0.01600 | 0.08440 | 0.00140 | 0.29369 | 519.3 | 9.5 | 521.9 | 8.1 | 501 | 58 | 521.9 | 8.1 | 0.5 | Single Age |
| MGT_01_11 | 51.6 | 1.31 | 0.81600 | 0.02600 | 0.10330 | 0.00180 | 0.17617 | 605.0 | 14.0 | 634.0 | 11.0 | 498 | 73 | 634.0 | 11.0 | 4.8 | Single Age |
| MGT_01_12 | 38.3 | 1.38 | 0.40400 | 0.04800 | 0.04770 | 0.00420 | 0.37902 | 342.0 | 35.0 | 300.0 | 26.0 | 690 | 270 | DISC | DISC | 12.3 | Rim |
| MGT_01_12 | 205 | 0.95 | 0.91700 | 0.03100 | 0.10530 | 0.00270 | 0.62740 | 660.0 | 16.0 | 645.0 | 16.0 | 750 | 63 | 645.0 | 16.0 | 2.3 | Core |
| MGT_01_13 | 131.6 | 0.32 | 0.63600 | 0.02300 | 0.07860 | 0.00160 | 0.00844 | 500.0 | 14.0 | 487.6 | 9.7 | 554 | 93 | 487.6 | 9.7 | 2.5 | Rim |
| MGT_01_13 | 76.5 | 0.29 | 0.67200 | 0.02800 | 0.08290 | 0.00170 | 0.04837 | 521.0 | 17.0 | 513.0 | 10.0 | 540 | 110 | 513.0 | 10.0 | 1.5 | Core |
| MGT_01_14 | 277 | 1.74 | 11.77000 | 0.19000 | 0.48010 | 0.00940 | 0.71514 | 2587.0 | 15.0 | 2536.0 | 41.0 | 2624 | 23 | 2624.0 | 23.0 | 3.4 | Single Age |
| MGT_01_15 | 575 | 1.46 | 0.74210 | 0.00990 | 0.09010 | 0.00160 | 0.74309 | 563.5 | 5.8 | 556.3 | 9.2 | 604 | 28 | 556.3 | 9.2 | 1.3 | Single Age |
| MGT_01_16 | 45 | 1.72 | 1.41300 | 0.03100 | 0.14620 | 0.00300 | 0.30157 | 893.0 | 13.0 | 879.0 | 17.0 | 913 | 54 | 913.0 | 54.0 | 3.7 | Single Age |
| MGT_01_18 | 243 | 1.42 | 0.83700 | 0.01900 | 0.09350 | 0.00180 | 0.60071 | 617.0 | 10.0 | 576.0 | 10.0 | 782 | 42 | 576.0 | 10.0 | 6.6 | Single Age |
| MGT_01_19 | 537 | 1.79 | 0.80900 | 0.01200 | 0.09710 | 0.00150 | 0.68259 | 602.5 | 6.8 | 597.1 | 8.9 | 629 | 26 | 597.1 | 8.9 | 0.9 | Single Age |
| MGT_01_20 | 24.3 | 0.81 | 1.04100 | 0.03800 | 0.11330 | 0.00360 | 0.44990 | 727.0 | 20.0 | 692.0 | 21.0 | 849 | 74 | 692.0 | 21.0 | 4.8 | Single Age |
| MGT_01_21 | 242 | 1.37 | 1.55200 | 0.03200 | 0.15590 | 0.00310 | 0.76738 | 950.0 | 13.0 | 934.0 | 17.0 | 1009 | 29 | 1009.0 | 29.0 | 7.4 | Single Age |
| MGT_01_22 | 87 | 0.74 | 1.11700 | 0.02200 | 0.12500 | 0.00230 | 0.42568 | 761.0 | 10.0 | 759.0 | 13.0 | 759 | 42 | 759.0 | 13.0 | 0.3 | Single Age |
| MGT_01_23 | 69.8 | 0.98 | 1.46200 | 0.02600 | 0.15450 | 0.00250 | 0.49581 | 914.0 | 11.0 | 926.0 | 14.0 | 891 | 36 | 891.0 | 36.0 | 3.9 | Single Age |
| MGT_01_24 | 267 | 0.86 | 9.90000 | 0.20000 | 0.44040 | 0.00950 | 0.86794 | 2425.0 | 19.0 | 2350.0 | 43.0 | 2485 | 18 | 2485.0 | 18.0 | 5.4 | Single Age |
| MGT_01_25 | 771 | 3.47 | 1.57300 | 0.02400 | 0.15870 | 0.00320 | 0.53520 | 959.1 | 9.5 | 949.0 | 18.0 | 974 | 37 | 974.0 | 37.0 | 2.6 | Single Age |
| MGT_01_26 | 497 | 16.60 | 0.77900 | 0.05500 | 0.09620 | 0.00870 | 0.83428 | 584.0 | 32.0 | 592.0 | 51.0 | 570 | 110 | 592.0 | 51.0 | 1.4 | Rim |
| MGT_01_26 | 83.3 | 1.46 | 1.37000 | 0.05100 | 0.13980 | 0.00770 | 0.62061 | 875.0 | 22.0 | 842.0 | 43.0 | 996 | 79 | 842.0 | 43.0 | 3.8 | Core |
| MGT_01_27 | 204 | 1.40 | 1.52000 | 0.01800 | 0.15600 | 0.00170 | 0.43831 | 939.0 | 7.3 | 934.4 | 9.6 | 962 | 26 | 962.0 | 26.0 | 2.9 | Single Age |
| MGT_01_28 | 79.5 | 0.36 | 10.13000 | 0.15000 | 0.44760 | 0.00720 | 0.63546 | 2448.0 | 13.0 | 2384.0 | 32.0 | 2478 | 21 | 2478.0 | 21.0 | 3.8 | Single Age |
| MGT_01_29 | 122.3 | 1.66 | 1.38200 | 0.02300 | 0.14570 | 0.00190 | 0.58345 | 880.4 | 9.9 | 877.0 | 11.0 | 901 | 31 | 901.0 | 31.0 | 2.7 | Single Age |
| MGT_01_30 | 252.7 | 1.64 | 1.08500 | 0.01500 | 0.12120 | 0.00140 | 0.52775 | 745.3 | 7.4 | 737.5 | 7.8 | 772 | 25 | 737.5 | 7.8 | 1.0 | Single Age |
| MGT_01_31 | 83.4 | 0.74 | 1.32000 | 0.03400 | 0.13650 | 0.00290 | 0.58094 | 853.0 | 15.0 | 825.0 | 17.0 | 932 | 45 | 825.0 | 17.0 | 3.3 | Single Age |
| MGT_01_32 | 99.9 | 1.11 | 1.26500 | 0.02000 | 0.12850 | 0.00150 | 0.08168 | 830.0 | 9.1 | 779.4 | 8.4 | 968 | 42 | 779.4 | 8.4 | 6.1 | Single Age |
| MGT_01_33 | 561 | 3.98 | 0.70500 | 0.01600 | 0.08540 | 0.00130 | 0.53939 | 541.5 | 9.4 | 528.2 | 7.6 | 612 | 43 | 528.2 | 7.6 | 2.5 | Rim |
| MGT_01_33 | 298 | 16.31 | 0.82800 | 0.02900 | 0.09820 | 0.00240 | 0.64927 | 612.0 | 16.0 | 604.0 | 14.0 | 622 | 47 | 604.0 | 14.0 | 1.3 | Core |
| MGT_01_34 | 377.2 | 0.73 | 0.72600 | 0.01700 | 0.08840 | 0.00180 | 0.07571 | 554.0 | 10.0 | 546.0 | 10.0 | 562 | 57 | 546.0 | 10.0 | 1.4 | Single Age |
| MGT_01_35 | 101.5 | 1.59 | 1.40400 | 0.02200 | 0.14440 | 0.00210 | 0.22846 | 889.9 | 9.2 | 871.0 | 12.0 | 939 | 42 | 939.0 | 42.0 | 7.2 | Single Age |
| MGT_01_36 | 324 | 0.88 | 4.76600 | 0.05800 | 0.30330 | 0.00390 | 0.69655 | 1778.0 | 10.0 | 1707.0 | 19.0 | 1852 | 17 | 1852.0 | 17.0 | 7.8 | Single Age |
| MGT_01_37 | 328.8 | 0.95 | 3.71900 | 0.02900 | 0.22500 | 0.00130 | 0.63279 | 1575.2 | 6.3 | 1308.3 | 7.0 | 1957 | 11 | DISC | DISC | 33.1 | Single Age |
| MGT_01_38 | 129.9 | 1.66 | 1.44000 | 0.01800 | 0.14300 | 0.00150 | 0.28417 | 906.6 | 7.6 | 861.8 | 8.4 | 1013 | 30 | 1013.0 | 30.0 | 14.9 | Single Age |
| MGT_01_39 | 26.1 | 2.57 | 0.80000 | 0.04800 | 0.08880 | 0.00450 | 0.23006 | 602.0 | 24.0 | 548.0 | 27.0 | 830 | 170 | 548.0 | 27.0 | 9.0 | Single Age |
| MGT_01_40 | 175.6 | 1.82 | 1.52500 | 0.05600 | 0.15370 | 0.00340 | 0.01123 | 940.0 | 23.0 | 922.0 | 19.0 | 982 | 90 | 982.0 | 90.0 | 6.1 | Single Age |
| MGT_01_41 | 607 | 1.48 | 0.55100 | 0.03000 | 0.07050 | 0.00520 | 0.78050 | 446.0 | 20.0 | 439.0 | 32.0 | 490 | 130 | 439.0 | 32.0 | 1.6 | Rim |
| MGT_01_41 | 175.9 | 0.86 | 1.36600 | 0.03600 | 0.13830 | 0.00250 | 0.32121 | 874.0 | 16.0 | 835.0 | 14.0 | 1005 | 52 | 835.0 | 14.0 | 4.5 | Core |
| MGT_01_42 | 138.6 | 1.00 | 1.42400 | 0.03300 | 0.14370 | 0.00250 | 0.47038 | 898.0 | 14.0 | 865.0 | 14.0 | 980 | 44 | 980.0 | 44.0 | 11.7 | Single Age |
| MGT_01_43 | 38.3 | 2.09 | 1.31900 | 0.03300 | 0.13150 | 0.00290 | 0.16589 | 852.0 | 15.0 | 798.0 | 16.0 | 1007 | 58 | 798.0 | 16.0 | 6.3 | Single Age |
| MGT_01_44 | 131.2 | 15.60 | 0.61600 | 0.02900 | 0.07790 | 0.00400 | 0.50266 | 486.0 | 18.0 | 483.0 | 24.0 | 479 | 89 | 483.0 | 24.0 | 0.6 | Rim |
| MGT_01_44 | 87.4 | 1.83 | 1.59300 | 0.04400 | 0.15530 | 0.00300 | 0.39063 | 967.0 | 18.0 | 930.0 | 17.0 | 1059 | 56 | 1059.0 | 56.0 | 12.2 | Core |
| MGT_01_45 | 184.5 | 1.31 | 0.80000 | 0.01900 | 0.09540 | 0.00190 | 0.28287 | 596.0 | 11.0 | 588.0 | 11.0 | 628 | 48 | 588.0 | 11.0 | 1.3 | Single Age |
| MGT_01_46 | 380 | 1.33 | 0.68100 | 0.01100 | 0.08460 | 0.00140 | 0.69968 | 526.9 | 6.6 | 523.6 | 8.1 | 543 | 30 | 523.6 | 8.1 | 0.6 | Single Age |

Table 3 Outer Lesser Himalaya zircon U-Pb Results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MGT_01_47 | 295.6 | 4.86 | 1.60600 | 0.01900 | 0.15700 | 0.00190 | 0.47294 | 972.2 | 7.6 | 940.0 | 11.0 | 1036 | 25 | 1036.0 | 25.0 | 9.3 | Rim |
| MGT_01_47 | 347 | 28.70 | 4.45000 | 0.10000 | 0.29200 | 0.01400 | 0.67526 | 1722.0 | 19.0 | 1653.0 | 69.0 | 1810 | 62 | 1810.0 | 62.0 | 8.7 | Core |
| MGT_01_48 | 35.4 | 0.46 | 8.84000 | 0.12000 | 0.40690 | 0.00580 | 0.43482 | 2323.0 | 12.0 | 2200.0 | 27.0 | 2441 | 24 | 2441.0 | 24.0 | 9.9 | Single Age |
| MGT_01_49 | 83.4 | 1.19 | 3.41000 | 0.08900 | 0.21930 | 0.00590 | 0.73500 | 1505.0 | 21.0 | 1284.0 | 29.0 | 1850 | 37 | DISC | DISC | 30.6 | Single Age |
| MGT_01_50 | 61.9 | 2.77 | 1.17000 | 0.02700 | 0.12780 | 0.00220 | 0.39977 | 785.0 | 13.0 | 775.0 | 13.0 | 861 | 50 | 775.0 | 13.0 | 1.3 | Single Age |
| MGT_01_51 | 68.6 | 0.99 | 6.42600 | 0.06600 | 0.35970 | 0.00360 | 0.51734 | 2035.1 | 9.0 | 1980.0 | 17.0 | 2094 | 17 | 2094.0 | 17.0 | 5.4 | Single Age |
| MGT_01_52 | 258.1 | 1.09 | 0.65300 | 0.01200 | 0.08130 | 0.00130 | 0.47153 | 511.9 | 8.2 | 503.9 | 7.5 | 540 | 44 | 503.9 | 7.5 | 1.6 | Single Age |
| MGT_01_53 | 33.8 | 0.51 | 4.10000 | 0.11000 | 0.28640 | 0.00590 | 0.34836 | 1657.0 | 22.0 | 1623.0 | 30.0 | 1710 | 52 | 1710.0 | 52.0 | 5.1 | Single Age |
| MGT_01_54 | 62 | 1.30 | 1.43100 | 0.04000 | 0.14740 | 0.00330 | 0.30691 | 900.0 | 17.0 | 886.0 | 18.0 | 920 | 54 | 920.0 | 54.0 | 3.7 | Single Age |
| MGT_01_55 | 93.9 | 0.68 | 9.81000 | 0.10000 | 0.44000 | 0.00490 | 0.47508 | 2419.3 | 9.7 | 2350.0 | 22.0 | 2472 | 20 | 2472.0 | 20.0 | 4.9 | Single Age |
| MGT_01_56 | 48.7 | 2.99 | 1.49800 | 0.03000 | 0.15420 | 0.00260 | 0.39620 | 931.0 | 12.0 | 924.0 | 14.0 | 928 | 40 | 928.0 | 40.0 | 0.4 | Single Age |
| MGT_01_57 | 78.6 | 1.42 | 1.11100 | 0.03300 | 0.12250 | 0.00320 | 0.44283 | 760.0 | 15.0 | 744.0 | 18.0 | 832 | 58 | 744.0 | 18.0 | 2.1 | Single Age |
| MGT_01_58 | 47.37 | 0.48 | 0.75100 | 0.02800 | 0.08750 | 0.00200 | 0.00942 | 567.0 | 16.0 | 541.0 | 12.0 | 702 | 82 | 541.0 | 12.0 | 4.6 | Single Age |
| MGT_01_59 | 148.9 | 1.10 | 10.33000 | 0.16000 | 0.45990 | 0.00820 | 0.67106 | 2464.0 | 14.0 | 2438.0 | 36.0 | 2478 | 22 | 2478.0 | 22.0 | 1.6 | Single Age |
| MGT_01_60 | 292 | 2.29 | 1.50300 | 0.04900 | 0.15220 | 0.00620 | 0.83667 | 930.0 | 20.0 | 912.0 | 35.0 | 998 | 45 | 998.0 | 45.0 | 8.6 | Single Age |
| MGT_01_61 | 488.5 | 1.59 | 1.03400 | 0.02600 | 0.11620 | 0.00190 | 0.37359 | 720.0 | 13.0 | 709.0 | 11.0 | 775 | 56 | 709.0 | 11.0 | 1.5 | Single Age |
| MGT_01_62 | 318 | 0.84 | 1.31500 | 0.03600 | 0.13220 | 0.00360 | 0.63386 | 852.0 | 16.0 | 800.0 | 20.0 | 981 | 44 | 800.0 | 20.0 | 6.1 | Single Age |
| MGT_01_63 | 179.9 | 1.47 | 1.15400 | 0.01700 | 0.12710 | 0.00120 | 0.37515 | 778.5 | 7.9 | 771.0 | 7.1 | 800 | 29 | 771.0 | 7.1 | 1.0 | Single Age |
| MGT_01_64 | 45.5 | 0.46 | 0.71000 | 0.03200 | 0.08850 | 0.00170 | 0.05745 | 542.0 | 19.0 | 546.4 | 9.9 | 500 | 100 | 546.4 | 9.9 | 0.8 | Single Age |
| MGT_01_65 | 246 | 0.60 | 26.85000 | 0.26000 | 0.66830 | 0.00740 | 0.71090 | 3378.5 | 9.6 | 3298.0 | 29.0 | 3417 | 12 | 3417.0 | 12.0 | 3.5 | Single Age |
| MGT_01_66 | 59.3 | 0.98 | 1.28400 | 0.04600 | 0.13760 | 0.00330 | 0.34476 | 837.0 | 20.0 | 835.0 | 18.0 | 833 | 79 | 835.0 | 18.0 | 0.2 | Single Age |
| MGT_01_67 | 66.4 | 1.13 | 1.14600 | 0.05000 | 0.12170 | 0.00380 | 0.09415 | 774.0 | 24.0 | 740.0 | 22.0 | 890 | 130 | 740.0 | 22.0 | 4.4 | Single Age |
| MGT_01_68 | 75.3 | 0.27 | 4.28700 | 0.07200 | 0.29740 | 0.00400 | 0.43155 | 1693.0 | 15.0 | 1678.0 | 20.0 | 1701 | 35 | 1701.0 | 35.0 | 1.4 | Single Age |
| MGT_01_70 | 77.5 | 0.81 | 9.37000 | 0.13000 | 0.41960 | 0.00570 | 0.70246 | 2378.0 | 12.0 | 2262.0 | 25.0 | 2479 | 20 | 2479.0 | 20.0 | 8.8 | Single Age |
| MGT_01_71 | 538 | 1.27 | 0.85350 | 0.00960 | 0.10190 | 0.00130 | 0.61647 | 626.4 | 5.3 | 625.7 | 7.7 | 626 | 25 | 625.7 | 7.7 | 0.1 | Single Age |
| MGT_01_72 | 366 | 1.57 | 25.77000 | 0.50000 | 0.61400 | 0.01100 | 0.91958 | 3342.0 | 18.0 | 3094.0 | 45.0 | 3484 | 12 | 3484.0 | 12.0 | 11.2 | Single Age |
| MGT_01_73 | 441 | 1.14 | 0.72300 | 0.01900 | 0.08890 | 0.00220 | 0.69715 | 552.0 | 11.0 | 549.0 | 13.0 | 585 | 49 | 549.0 | 13.0 | 0.5 | Single Age |
| MGT_01_74 | 304 | 0.77 | 1.18800 | 0.01600 | 0.13050 | 0.00150 | 0.50972 | 794.9 | 7.5 | 790.6 | 8.5 | 795 | 27 | 790.6 | 8.5 | 0.5 | Single Age |
| MGT_01_75 | 23.6 | 0.44 | 0.66300 | 0.02700 | 0.08130 | 0.00230 | 0.22599 | 517.0 | 16.0 | 504.0 | 14.0 | 608 | 99 | 504.0 | 14.0 | 2.5 | Single Age |
| MGT_01_76 | 260.3 | 0.28 | 0.69260 | 0.00940 | 0.08542 | 0.00091 | 0.19845 | 534.1 | 5.7 | 529.1 | 5.5 | 552 | 36 | 529.1 | 5.5 | 0.9 | Single Age |
| MGT_01_77 | 21.47 | 0.83 | 1.00800 | 0.04100 | 0.11640 | 0.00340 | 0.54117 | 704.0 | 21.0 | 710.0 | 19.0 | 679 | 83 | 710.0 | 19.0 | 0.9 | Single Age |
| MGT_01_78 | 659 | 1.37 | 0.64490 | 0.00660 | 0.07882 | 0.00054 | 0.20075 | 505.2 | 4.1 | 489.1 | 3.2 | 574 | 26 | 489.1 | 3.2 | 3.2 | Single Age |
| MGT_01_79 | 161 | 0.44 | 11.11000 | 0.14000 | 0.45620 | 0.00510 | 0.54098 | 2531.0 | 12.0 | 2422.0 | 23.0 | 2608 | 20 | 2608.0 | 20.0 | 7.1 | Single Age |
| MGT_01_80 | 258 | 1.84 | 1.58900 | 0.01700 | 0.16260 | 0.00170 | 0.62499 | 965.7 | 6.7 | 971.2 | 9.2 | 961 | 20 | 961.0 | 20.0 | 1.1 | Single Age |
| MGT_01_81 | 163 | 0.57 | 1.35000 | 0.01900 | 0.13870 | 0.00180 | 0.53702 | 868.3 | 8.3 | 837.0 | 10.0 | 947 | 26 | 837.0 | 10.0 | 3.6 | Single Age |
| MGT_01_82 | 251 | 3.36 | 4.56200 | 0.08300 | 0.29160 | 0.00510 | 0.87458 | 1744.0 | 15.0 | 1649.0 | 26.0 | 1866 | 15 | 1866.0 | 15.0 | 11.6 | Single Age |
| MGT_01_83 | 169.4 | 1.05 | 1.41600 | 0.03000 | 0.14030 | 0.00350 | 0.64499 | 896.0 | 12.0 | 848.0 | 19.0 | 1003 | 43 | 848.0 | 19.0 | 5.4 | Single Age |
| MGT_01_84 | 289.1 | 1.38 | 8.74000 | 0.27000 | 0.38800 | 0.01200 | 0.77857 | 2305.0 | 27.0 | 2109.0 | 56.0 | 2446 | 36 | 2446.0 | 36.0 | 13.8 | Single Age |
| MGT_01_85 | 43.2 | 0.79 | 1.43900 | 0.04000 | 0.14770 | 0.00300 | 0.37419 | 903.0 | 17.0 | 888.0 | 17.0 | 934 | 59 | 934.0 | 59.0 | 4.9 | Single Age |
| MGT_01_86 | 355.1 | 1.25 | 1.17700 | 0.03000 | 0.13080 | 0.00250 | 0.59046 | 790.0 | 14.0 | 792.0 | 14.0 | 782 | 48 | 792.0 | 14.0 | 0.3 | Rim |
| MGT_01_86 | 84.5 | 0.56 | 11.61000 | 0.19000 | 0.46510 | 0.00950 | 0.43467 | 2573.0 | 16.0 | 2462.0 | 42.0 | 2642 | 40 | 2642.0 | 40.0 | 6.8 | Core |
| MGT_01_87 | 215 | 1.81 | 5.27300 | 0.05300 | 0.33450 | 0.00350 | 0.62545 | 1864.9 | 8.3 | 1860.0 | 17.0 | 1876 | 14 | 1876.0 | 14.0 | 0.9 | Single Age |

Table 3 Outer Lesser Himalaya zircon U-Pb Results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MGT_01_88 | 248 | 1.75 | 0.84200 | 0.01000 | 0.10090 | 0.00083 | 0.21959 | 620.8 | 5.5 | 619.7 | 4.8 | 633 | 27 | 619.7 | 4.8 | 0.2 | Single Age |
| MGT_01_89 | 113.4 | 0.67 | 8.77000 | 0.13000 | 0.39860 | 0.00620 | 0.75710 | 2313.0 | 13.0 | 2166.0 | 30.0 | 2465 | 18 | 2465.0 | 18.0 | 12.1 | Single Age |
| MGT_01_90 | 233 | 1.81 | 1.52300 | 0.01900 | 0.15180 | 0.00150 | 0.39655 | 939.3 | 7.8 | 910.8 | 8.7 | 1013 | 25 | 1013.0 | 25.0 | 10.1 | Single Age |
| MGT_01_91 | 63.4 | 0.47 | 1.13300 | 0.02700 | 0.12530 | 0.00240 | 0.28893 | 768.0 | 13.0 | 761.0 | 14.0 | 786 | 46 | 761.0 | 14.0 | 0.9 | Single Age |
| MGT_01_92 | 47.4 | 0.64 | 1.08700 | 0.02800 | 0.12140 | 0.00240 | 0.28955 | 750.0 | 14.0 | 738.0 | 14.0 | 776 | 63 | 738.0 | 14.0 | 1.6 | Single Age |
| MGT_01_93 | 149.5 | 1.10 | 0.85300 | 0.01100 | 0.10210 | 0.00100 | 0.06836 | 625.8 | 6.2 | 626.7 | 6.0 | 620 | 37 | 626.7 | 6.0 | 0.1 | Single Age |
| MGT_01_94 | 247 | 1.37 | 1.52800 | 0.02000 | 0.15550 | 0.00190 | 0.64271 | 941.4 | 8.1 | 932.0 | 10.0 | 959 | 20 | 959.0 | 20.0 | 2.8 | Single Age |
| MGT_01_95 | 199.6 | 1.08 | 10.22300 | 0.07900 | 0.44780 | 0.00340 | 0.66458 | 2454.7 | 7.2 | 2385.0 | 15.0 | 2518 | 10 | 2518.0 | 10.0 | 5.3 | Single Age |
| MGT_01_96 | 192 | 0.55 | 0.63800 | 0.01100 | 0.07530 | 0.00083 | 0.28724 | 500.5 | 6.6 | 468.0 | 5.0 | 634 | 37 | 468.0 | 5.0 | 6.5 | Single Age |
| MGT_01_97 | 360 | 1.27 | 0.70100 | 0.02200 | 0.08500 | 0.00230 | 0.25177 | 539.0 | 13.0 | 526.0 | 14.0 | 595 | 42 | 526.0 | 14.0 | 2.4 | Single Age |
| MGT_01_98 | 120.3 | 1.56 | 0.67100 | 0.01800 | 0.08000 | 0.00230 | 0.34841 | 521.0 | 11.0 | 496.0 | 14.0 | 630 | 68 | 496.0 | 14.0 | 4.8 | Single Age |
| MGT_01_99 | 179.1 | 0.48 | 10.10000 | 0.18000 | 0.45450 | 0.00820 | 0.73378 | 2443.0 | 16.0 | 2414.0 | 36.0 | 2488 | 22 | 2488.0 | 22.0 | 3.0 | Single Age |
| MGT_01_100 | 397 | 1.38 | 0.84200 | 0.01400 | 0.10020 | 0.00120 | 0.51844 | 619.7 | 7.5 | 615.3 | 7.3 | 622 | 35 | 615.3 | 7.3 | 0.7 | Single Age |
| MGT_01_101 | 66.8 | 0.59 | 1.03400 | 0.01900 | 0.11320 | 0.00170 | 0.20507 | 721.8 | 9.5 | 691.4 | 9.9 | 824 | 44 | 691.4 | 9.9 | 4.2 | Single Age |
| MGT_01_102 | 24.5 | 0.97 | 1.26900 | 0.07700 | 0.12910 | 0.00670 | 0.25625 | 829.0 | 35.0 | 782.0 | 38.0 | 970 | 170 | 782.0 | 38.0 | 5.7 | Rim |
| MGT_01_102 | 16.51 | 1.24 | 1.64000 | 0.13000 | 0.16540 | 0.00970 | 0.45566 | 982.0 | 51.0 | 986.0 | 54.0 | 1020 | 170 | 1020.0 | 170.0 | 3.3 | Core |
| MGT_01_103 | 206 | 2.61 | 1.51200 | 0.03600 | 0.15420 | 0.00350 | 0.74668 | 934.0 | 15.0 | 924.0 | 20.0 | 959 | 32 | 959.0 | 32.0 | 3.6 | Single Age |
| MGT_01_104 | 160.8 | 1.92 | 1.03200 | 0.01900 | 0.11700 | 0.00160 | 0.36268 | 722.8 | 9.7 | 713.4 | 9.0 | 733 | 38 | 713.4 | 9.0 | 1.3 | Single Age |
| MGT_01_105 | 52.5 | 1.19 | 1.56900 | 0.02800 | 0.16240 | 0.00300 | 0.33881 | 957.0 | 11.0 | 969.0 | 17.0 | 910 | 44 | 910.0 | 44.0 | 6.5 | Single Age |
| MGT_01_106 | 344 | 3.14 | 5.18200 | 0.04600 | 0.33180 | 0.00340 | 0.76451 | 1849.2 | 7.6 | 1847.0 | 17.0 | 1862 | 13 | 1862.0 | 13.0 | 0.8 | Single Age |
| MGT_01_107 | 172 | 0.81 | 1.17600 | 0.01700 | 0.13040 | 0.00170 | 0.50846 | 790.9 | 8.1 | 790.1 | 9.4 | 780 | 28 | 790.1 | 9.4 | 0.1 | Single Age |
| MGT_01_108 | 224 | 1.95 | 0.70900 | 0.01200 | 0.08730 | 0.00100 | 0.34864 | 543.6 | 6.8 | 539.3 | 6.1 | 554 | 35 | 539.3 | 6.1 | 0.8 | Single Age |
| MGT_01_109 | 50.9 | 1.39 | 21.80000 | 0.26000 | 0.63700 | 0.01100 | 0.84010 | 3174.0 | 11.0 | 3174.0 | 42.0 | 3179 | 12 | 3179.0 | 12.0 | 0.2 | Single Age |
| MGT_01_110 | 400 | 2.34 | 0.87100 | 0.01100 | 0.10297 | 0.00095 | 0.53328 | 637.0 | 6.4 | 631.8 | 5.5 | 661 | 25 | 631.8 | 5.5 | 0.8 | Single Age |
| MGT_01_111 | 295.2 | 21.70 | 1.16000 | 0.01700 | 0.12940 | 0.00150 | 0.55640 | 783.4 | 8.1 | 784.4 | 8.3 | 780 | 24 | 784.4 | 8.3 | 0.1 | Single Age |
| MGT_01_112 | 215 | 2.69 | 5.35200 | 0.04500 | 0.32240 | 0.00300 | 0.67350 | 1876.8 | 7.2 | 1801.0 | 14.0 | 1959 | 13 | 1959.0 | 13.0 | 8.1 | Single Age |
| MGT_01_113 | 411 | 0.76 | 8.92000 | 0.35000 | 0.38200 | 0.01500 | 0.97839 | 2319.0 | 36.0 | 2082.0 | 68.0 | 2554 | 13 | 2554.0 | 13.0 | 18.5 | Single Age |
| MGT_01_114 | 1012 | 14.40 | 0.63200 | 0.02600 | 0.07740 | 0.00340 | 0.92393 | 497.0 | 16.0 | 481.0 | 20.0 | 562 | 44 | 481.0 | 20.0 | 3.2 | Rim |
| MGT_01_114 | 177.8 | 0.86 | 1.54100 | 0.03600 | 0.15610 | 0.00270 | 0.28511 | 946.0 | 14.0 | 935.0 | 15.0 | 966 | 50 | 966.0 | 50.0 | 3.2 | Core |
| MGT_01_115 | 178 | 1.52 | 1.56300 | 0.01900 | 0.15900 | 0.00160 | 0.41296 | 955.0 | 7.6 | 950.9 | 8.7 | 962 | 24 | 962.0 | 24.0 | 1.2 | Single Age |
| MGT_01_116 | 970 | 2.46 | 0.63670 | 0.00700 | 0.07898 | 0.00083 | 0.61289 | 501.0 | 4.1 | 490.0 | 5.0 | 577 | 21 | 490.0 | 5.0 | 2.2 | Single Age |
| MGT_01_117 | 236 | 2.01 | 0.91000 | 0.01400 | 0.10820 | 0.00130 | 0.58261 | 656.6 | 7.5 | 662.1 | 7.3 | 647 | 28 | 662.1 | 7.3 | 0.8 | Single Age |
| MGT_01_118 | 402 | 2.96 | 1.08700 | 0.01600 | 0.12180 | 0.00180 | 0.67076 | 746.5 | 7.9 | 741.0 | 10.0 | 759 | 25 | 741.0 | 10.0 | 0.7 | Single Age |
| MGT_01_119 | 159 | 1.28 | 0.84800 | 0.01800 | 0.10130 | 0.00130 | 0.01691 | 622.9 | 9.7 | 621.9 | 7.5 | 613 | 43 | 621.9 | 7.5 | 0.2 | Single Age |
| MGT02_1 | 76.3 | 0.52 | 1.18400 | 0.01500 | 0.12770 | 0.00150 | 0.42442 | 794.1 | 7.0 | 774.7 | 8.7 | 837 | 29 | 774.7 | 8.7 | 2.4 | Single Age |
| MGT02_2 | 226 | 1.35 | 5.37100 | 0.05200 | 0.33830 | 0.00370 | 0.69419 | 1879.6 | 8.2 | 1878.0 | 18.0 | 1878 | 16 | 1878.0 | 16.0 | 0.0 | Single Age |
| MGT02_3 | 489 | 2.07 | 3.92100 | 0.04800 | 0.27930 | 0.00490 | 0.64394 | 1619.0 | 10.0 | 1587.0 | 25.0 | 1644 | 27 | 1644.0 | 27.0 | 3.5 | Single Age |
| MGT02_4 | 75.2 | 1.56 | 7.75300 | 0.09800 | 0.40710 | 0.00510 | 0.69158 | 2203.0 | 11.0 | 2204.0 | 23.0 | 2196 | 18 | 2196.0 | 18.0 | 0.4 | Single Age |
| MGT02_5 | 140.4 | 1.02 | 1.67300 | 0.01900 | 0.16880 | 0.00210 | 0.55642 | 997.9 | 7.3 | 1005.0 | 12.0 | 976 | 23 | 976.0 | 23.0 | 3.0 | Single Age |
| MGT02_6 | 140.2 | 1.51 | 5.23400 | 0.03900 | 0.33020 | 0.00260 | 0.65527 | 1858.6 | 6.2 | 1839.0 | 13.0 | 1874 | 12 | 1874.0 | 12.0 | 1.9 | Single Age |
| MGT02_7 | 117 | 1.24 | 13.95000 | 0.22000 | 0.53900 | 0.01100 | 0.69567 | 2746.0 | 15.0 | 2776.0 | 45.0 | 2712 | 24 | 2712.0 | 24.0 | 2.4 | Single Age |
| MGT02_8 | 62.6 | 1.04 | 4.82500 | 0.08600 | 0.31410 | 0.00910 | 0.74560 | 1787.0 | 15.0 | 1764.0 | 44.0 | 1844 | 36 | 1844.0 | 36.0 | 4.3 | Single Age |

Table 3 Outer Lesser Himalaya zircon U-Pb Results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MGT02_9 | 92 | 0.37 | 0.72000 | 0.01400 | 0.08470 | 0.00120 | 0.34081 | 551.0 | 8.3 | 524.2 | 7.3 | 658 | 46 | 524.2 | 7.3 | 4.9 | Single Age |
| MGT02_10 | 122.8 | 0.73 | 5.65400 | 0.07200 | 0.33840 | 0.00480 | 0.71807 | 1923.0 | 11.0 | 1878.0 | 23.0 | 1972 | 19 | 1972.0 | 19.0 | 4.8 | Single Age |
| MGT02_11 | 78.2 | 1.36 | 1.10600 | 0.01700 | 0.12470 | 0.00170 | 0.38256 | 756.8 | 8.3 | 757.5 | 9.6 | 744 | 36 | 757.5 | 9.6 | 0.1 | Single Age |
| MGT02_12 | 373 | 3.65 | 1.66000 | 0.01900 | 0.16640 | 0.00190 | 0.68662 | 992.9 | 7.3 | 992.0 | 10.0 | 991 | 17 | 991.0 | 17.0 | 0.1 | Single Age |
| MGT02_13 | 315.9 | 1.86 | 1.39000 | 0.02700 | 0.14650 | 0.00290 | 0.73107 | 884.0 | 12.0 | 881.0 | 16.0 | 890 | 29 | 890.0 | 29.0 | 1.0 | Single Age |
| MGT02_14 | 25.9 | 0.86 | 4.78400 | 0.08800 | 0.31350 | 0.00550 | 0.35581 | 1780.0 | 15.0 | 1757.0 | 27.0 | 1820 | 29 | 1820.0 | 29.0 | 3.5 | Single Age |
| MGT02_15 | 79.8 | 0.85 | 6.21000 | 0.10000 | 0.36690 | 0.00780 | 0.69675 | 2005.0 | 14.0 | 2013.0 | 37.0 | 1988 | 27 | 1988.0 | 27.0 | 1.3 | Single Age |
| MGT02_16 | 108.8 | 0.27 | 0.66600 | 0.01400 | 0.08010 | 0.00130 | 0.36363 | 517.8 | 8.7 | 496.5 | 7.8 | 594 | 43 | 496.5 | 7.8 | 4.1 | Single Age |
| MGT02_17 | 87 | 1.70 | 1.58700 | 0.05000 | 0.14890 | 0.00360 | 0.58893 | 964.0 | 20.0 | 895.0 | 20.0 | 1158 | 51 | 1158.0 | 51.0 | 22.7 | Single Age |
| MGT02_18 | 147 | 1.22 | 7.70600 | 0.09200 | 0.40390 | 0.00580 | 0.75978 | 2198.0 | 10.0 | 2186.0 | 27.0 | 2203 | 17 | 2203.0 | 17.0 | 0.8 | Single Age |
| MGT02_19 | 105.1 | 0.42 | 13.60000 | 0.13000 | 0.52540 | 0.00500 | 0.79093 | 2721.6 | 8.7 | 2724.0 | 21.0 | 2726 | 10 | 2726.0 | 10.0 | 0.1 | Single Age |
| MGT02_20 | 803 | 48.80 | 0.83000 | 0.02700 | 0.09530 | 0.00180 | 0.16066 | 613.0 | 15.0 | 587.0 | 11.0 | 751 | 63 | 587.0 | 11.0 | 4.2 | Rim |
| MGT02_20 | 48.7 | 1.14 | 10.22000 | 0.16000 | 0.38690 | 0.00590 | 0.72832 | 2457.0 | 14.0 | 2108.0 | 27.0 | 2762 | 19 | 2762.0 | 19.0 | 23.7 | Core |
| MGT02_21 | 197 | 5.34 | 0.72200 | 0.01100 | 0.09070 | 0.00120 | 0.34842 | 551.5 | 6.6 | 559.4 | 7.1 | 553 | 31 | 559.4 | 7.1 | 1.4 | Rim |
| MGT02_21 | 12.5 | 44.00 | 0.87900 | 0.07800 | 0.10440 | 0.00750 | 0.18058 | 638.0 | 42.0 | 640.0 | 44.0 | 610 | 260 | 640.0 | 44.0 | 0.3 | Core |
| MGT02_21 | 9.27 | 8.60 | 1.19300 | 0.09700 | 0.13350 | 0.00610 | 0.31599 | 805.0 | 41.0 | 807.0 | 35.0 | 800 | 160 | 807.0 | 35.0 | 0.2 | Core |
| MGT02_22 | 278 | 1.71 | 5.81200 | 0.05500 | 0.35380 | 0.00330 | 0.78148 | 1947.6 | 8.2 | 1952.0 | 16.0 | 1949 | 11 | 1949.0 | 11.0 | 0.2 | Single Age |
| MGT02_23 | 117.7 | 1.44 | 5.25300 | 0.06500 | 0.33280 | 0.00420 | 0.72010 | 1862.0 | 11.0 | 1851.0 | 20.0 | 1862 | 17 | 1862.0 | 17.0 | 0.6 | Single Age |
| MGT02_24 | 45.8 | 0.82 | 12.82000 | 0.11000 | 0.50240 | 0.00380 | 0.56064 | 2666.0 | 7.9 | 2623.0 | 16.0 | 2703 | 13 | 2703.0 | 13.0 | 3.0 | Single Age |
| MGT02_25 | 237 | 9.40 | 1.33900 | 0.02000 | 0.14340 | 0.00190 | 0.69418 | 863.0 | 8.7 | 863.0 | 11.0 | 852 | 23 | 852.0 | 23.0 | 1.3 | Single Age |
| MGT02_26 | 125.7 | 0.96 | 5.34700 | 0.07500 | 0.33910 | 0.00500 | 0.37156 | 1876.0 | 12.0 | 1882.0 | 24.0 | 1875 | 22 | 1875.0 | 22.0 | 0.4 | Single Age |
| MGT02_27 | 44.5 | 1.13 | 5.30800 | 0.06800 | 0.33730 | 0.00550 | 0.63007 | 1869.0 | 11.0 | 1873.0 | 26.0 | 1859 | 23 | 1859.0 | 23.0 | 0.8 | Single Age |
| MGT02_28 | 127.7 | 1.22 | 5.38100 | 0.04200 | 0.33980 | 0.00340 | 0.74583 | 1881.5 | 6.6 | 1885.0 | 16.0 | 1875 | 13 | 1875.0 | 13.0 | 0.5 | Single Age |
| MGT02_29 | 69.1 | 3.22 | 6.19000 | 0.09600 | 0.36420 | 0.00470 | 0.79401 | 2002.0 | 14.0 | 2001.0 | 22.0 | 1992 | 17 | 1992.0 | 17.0 | 0.5 | Single Age |
| MGT02_30 | 57.6 | 0.28 | 0.79400 | 0.01800 | 0.09610 | 0.00170 | 0.40575 | 593.0 | 10.0 | 593.0 | 10.0 | 605 | 48 | 593.0 | 10.0 | 0.0 | Single Age |
| MGT02_31 | 174 | 0.98 | 21.80000 | 0.40000 | 0.63200 | 0.01200 | 0.81776 | 3174.0 | 18.0 | 3155.0 | 49.0 | 3165 | 18 | 3165.0 | 18.0 | 0.3 | Single Age |
| MGT02_32 | 129.7 | 1.32 | 2.33000 | 0.10000 | 0.17520 | 0.00780 | 0.62096 | 1226.0 | 33.0 | 1040.0 | 43.0 | 1611 | 61 | DISC | DISC | 35.4 | Single Age |
| MGT02_33 | 68.4 | 1.05 | 5.71700 | 0.06400 | 0.34900 | 0.00400 | 0.72289 | 1937.0 | 10.0 | 1930.0 | 19.0 | 1942 | 17 | 1942.0 | 17.0 | 0.6 | Single Age |
| MGT02_34 | 176.2 | 1.50 | 2.66000 | 0.03800 | 0.22650 | 0.00230 | 0.73879 | 1319.0 | 11.0 | 1316.0 | 12.0 | 1313 | 19 | 1313.0 | 19.0 | 0.2 | Single Age |
| MGT02_35 | 144 | 1.10 | 1.76200 | 0.03000 | 0.17470 | 0.00280 | 0.74947 | 1032.0 | 11.0 | 1038.0 | 15.0 | 1029 | 22 | 1029.0 | 22.0 | 0.9 | Single Age |
| MGT02_36 | 80.1 | 1.50 | 11.04000 | 0.12000 | 0.48140 | 0.00550 | 0.69999 | 2525.5 | 9.9 | 2536.0 | 25.0 | 2498 | 15 | 2498.0 | 15.0 | 1.5 | Single Age |
| MGT02_37 | 98.9 | 0.87 | 12.57000 | 0.14000 | 0.50350 | 0.00710 | 0.75307 | 2650.0 | 11.0 | 2628.0 | 31.0 | 2656 | 15 | 2656.0 | 15.0 | 1.1 | Single Age |
| MGT02_38 | -3.17337E-06 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| MGT02_39 | 251.6 | 2.48 | 0.86970 | 0.00960 | 0.10290 | 0.00110 | 0.54062 | 635.1 | 5.2 | 631.0 | 6.6 | 654 | 22 | 631.0 | 6.6 | 0.6 | Single Age |
| MGT02_40 | 292 | 1.48 | 3.04800 | 0.04600 | 0.24510 | 0.00390 | 0.79613 | 1419.0 | 12.0 | 1413.0 | 20.0 | 1441 | 20 | 1441.0 | 20.0 | 1.9 | Single Age |
| MGT02_41 | 106.7 | 0.68 | 1.58000 | 0.01600 | 0.16120 | 0.00160 | 0.49253 | 961.9 | 6.2 | 963.5 | 8.6 | 955 | 21 | 955.0 | 21.0 | 0.9 | Single Age |
| MGT02_42 | 74.7 | 0.84 | 16.79000 | 0.15000 | 0.57630 | 0.00740 | 0.75263 | 2923.7 | 9.0 | 2933.0 | 30.0 | 2920 | 12 | 2920.0 | 12.0 | 0.4 | Single Age |
| MGT02_43 | 622 | 11.88 | 0.76500 | 0.00640 | 0.09400 | 0.00088 | 0.60954 | 576.8 | 3.7 | 579.1 | 5.2 | 564 | 16 | 579.1 | 5.2 | 0.4 | Single Age |
| MGT02_44 | 90.4 | 0.73 | 5.04900 | 0.04600 | 0.32890 | 0.00320 | 0.56130 | 1826.9 | 7.7 | 1833.0 | 16.0 | 1814 | 16 | 1814.0 | 16.0 | 1.0 | Single Age |
| MGT02_45 | 307 | 2.13 | 5.24000 | 0.06400 | 0.33030 | 0.00520 | 0.79435 | 1858.0 | 10.0 | 1839.0 | 25.0 | 1871 | 16 | 1871.0 | 16.0 | 1.7 | Single Age |
| MGT02_46 | 160.2 | 1.35 | 9.64000 | 0.15000 | 0.44320 | 0.00750 | 0.82276 | 2402.0 | 14.0 | 2369.0 | 33.0 | 2422 | 16 | 2422.0 | 16.0 | 2.2 | Single Age |
| MGT02_47 | 80 | 1.12 | 10.82000 | 0.15000 | 0.47370 | 0.00740 | 0.77556 | 2508.0 | 13.0 | 2503.0 | 32.0 | 2499 | 17 | 2499.0 | 17.0 | 0.2 | Single Age |

Table 3 Outer Lesser Himalaya zircon U-Pb Results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MGT02_48 | 191 | 1.85 | 0.79900 | 0.01000 | 0.09715 | 0.00094 | 0.53870 | 596.0 | 5.7 | 597.6 | 5.5 | 600 | 24 | 597.6 | 5.5 | 0.3 | Single Age |
| MGT02_49 | 0.0069 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| MGT02_50 | 58.3 | 1.46 | 1.54600 | 0.01800 | 0.15650 | 0.00170 | 0.50519 | 948.3 | 7.0 | 936.9 | 9.4 | 977 | 27 | 977.0 | 27.0 | 4.1 | Single Age |
| MGT02_51 | 84.3 | 0.55 | 4.35000 | 0.06000 | 0.29390 | 0.00470 | 0.73456 | 1704.0 | 12.0 | 1661.0 | 23.0 | 1764 | 22 | 1764.0 | 22.0 | 5.8 | Single Age |
| MGT02_52 | 101.5 | 0.80 | 10.95000 | 0.12000 | 0.46920 | 0.00510 | 0.69918 | 2518.0 | 10.0 | 2480.0 | 22.0 | 2538 | 13 | 2538.0 | 13.0 | 2.3 | Single Age |
| MGT02_53 | 215 | 1.44 | 5.41200 | 0.06100 | 0.34200 | 0.00470 | 0.69868 | 1889.0 | 10.0 | 1896.0 | 22.0 | 1869 | 19 | 1869.0 | 19.0 | 1.4 | Single Age |
| MGT02_54 | 214 | 0.86 | 5.31700 | 0.03900 | 0.33720 | 0.00210 | 0.57318 | 1871.2 | 6.2 | 1873.0 | 10.0 | 1856 | 12 | 1856.0 | 12.0 | 0.9 | Single Age |
| MGT02_55 | 0.019 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| MGT02_56 | 266 | 1.60 | 5.35200 | 0.08200 | 0.33500 | 0.00560 | 0.78343 | 1876.0 | 13.0 | 1862.0 | 27.0 | 1883 | 19 | 1883.0 | 19.0 | 1.1 | Single Age |
| MGT02_57 | 181 | 1.46 | 2.00800 | 0.03300 | 0.19140 | 0.00280 | 0.68967 | 1118.0 | 11.0 | 1129.0 | 15.0 | 1081 | 31 | 1081.0 | 31.0 | 4.4 | Single Age |
| MGT02_58 | 111.3 | 1.02 | 9.28000 | 0.12000 | 0.44130 | 0.00660 | 0.76270 | 2365.0 | 12.0 | 2355.0 | 29.0 | 2367 | 17 | 2367.0 | 17.0 | 0.5 | Single Age |
| MGT02_59 | 582 | 0.70 | 9.38000 | 0.11000 | 0.37420 | 0.00490 | 0.79685 | 2375.0 | 10.0 | 2048.0 | 23.0 | 2667 | 13 | 2667.0 | 13.0 | 23.2 | Single Age |
| MGT02_60 | 88 | 0.81 | 8.95000 | 0.16000 | 0.40400 | 0.00800 | 0.87192 | 2331.0 | 16.0 | 2186.0 | 37.0 | 2459 | 15 | 2459.0 | 15.0 | 11.1 | Single Age |
| MGT02_61 | 66.4 | 0.95 | 5.03000 | 0.06100 | 0.32440 | 0.00380 | 0.64656 | 1825.0 | 10.0 | 1811.0 | 18.0 | 1835 | 16 | 1835.0 | 16.0 | 1.3 | Single Age |
| MGT02_62 | 74.8 | 0.44 | 12.62000 | 0.10000 | 0.49600 | 0.00530 | 0.73337 | 2651.2 | 7.5 | 2596.0 | 23.0 | 2690 | 11 | 2690.0 | 11.0 | 3.5 | Single Age |
| MGT02_63 | 36 | 1.65 | 1.58900 | 0.03100 | 0.15630 | 0.00290 | 0.48550 | 966.0 | 13.0 | 936.0 | 16.0 | 1018 | 43 | 1018.0 | 43.0 | 8.1 | Single Age |
| MGT02_64 | 84 | 0.53 | 5.70300 | 0.08300 | 0.34610 | 0.00510 | 0.76725 | 1930.0 | 13.0 | 1915.0 | 24.0 | 1931 | 18 | 1931.0 | 18.0 | 0.8 | Single Age |
| MGT02_65 | 84.6 | 1.10 | 12.47000 | 0.16000 | 0.50330 | 0.00540 | 0.74320 | 2640.0 | 12.0 | 2628.0 | 23.0 | 2648 | 11 | 2648.0 | 11.0 | 0.8 | Single Age |
| MGT02_66 | 434.8 | 1.73 | 0.67870 | 0.00640 | 0.08438 | 0.00080 | 0.69834 | 525.8 | 3.9 | 522.2 | 4.8 | 533 | 16 | 522.2 | 4.8 | 0.7 | Single Age |
| MGT02_67 | 292 | 4.06 | 1.54800 | 0.03000 | 0.15690 | 0.00400 | 0.78847 | 949.0 | 12.0 | 939.0 | 22.0 | 954 | 27 | 954.0 | 27.0 | 1.6 | Single Age |
| MGT02_68 | 42.3 | 1.18 | 13.38000 | 0.12000 | 0.52210 | 0.00550 | 0.64183 | 2705.8 | 8.8 | 2707.0 | 23.0 | 2701 | 15 | 2701.0 | 15.0 | 0.2 | Single Age |
| MGT02_69 | 367 | 1.68 | 1.04800 | 0.01700 | 0.11860 | 0.00180 | 0.74619 | 727.1 | 8.6 | 722.0 | 11.0 | 734 | 22 | 722.0 | 11.0 | 0.7 | Single Age |
| MGT02_70 | 59.6 | 0.52 | 10.16600 | 0.08700 | 0.45520 | 0.00440 | 0.60124 | 2449.3 | 7.9 | 2418.0 | 20.0 | 2478 | 13 | 2478.0 | 13.0 | 2.4 | Single Age |
| MGT02_71 | 150.2 | 0.87 | 4.41000 | 0.14000 | 0.30250 | 0.00830 | 0.86186 | 1712.0 | 26.0 | 1702.0 | 41.0 | 1734 | 26 | 1734.0 | 26.0 | 1.8 | Single Age |
| MGT02_72 | 95.8 | 1.43 | 13.59000 | 0.23000 | 0.51890 | 0.00990 | 0.78914 | 2724.0 | 15.0 | 2693.0 | 42.0 | 2736 | 19 | 2736.0 | 19.0 | 1.6 | Single Age |
| MGT02_73 | 39.7 | 0.68 | 5.05000 | 0.10000 | 0.32710 | 0.00580 | 0.66950 | 1829.0 | 18.0 | 1824.0 | 28.0 | 1825 | 32 | 1825.0 | 32.0 | 0.1 | Single Age |
| MGT02_74 | 32.8 | 0.87 | 0.86200 | 0.02400 | 0.09130 | 0.00160 | 0.38637 | 632.0 | 13.0 | 563.3 | 9.7 | 883 | 61 | DISC | DISC | 10.9 | Single Age |
| MGT02_75 | 282 | 2.66 | 0.77200 | 0.01600 | 0.09610 | 0.00170 | 0.47427 | 581.9 | 8.7 | 592.0 | 10.0 | 549 | 41 | 592.0 | 10.0 | 1.7 | Rim |
| MGT02_75 | 267 | 1.60 | 2.69900 | 0.03700 | 0.23050 | 0.00320 | 0.68363 | 1328.0 | 10.0 | 1337.0 | 17.0 | 1324 | 28 | 1324.0 | 28.0 | 1.0 | Core |
| MGT02_76 | 52.7 | 1.81 | 1.49400 | 0.03800 | 0.14990 | 0.00400 | 0.58131 | 929.0 | 15.0 | 900.0 | 23.0 | 946 | 56 | 946.0 | 56.0 | 4.9 | Single Age |
| MGT02_77 | 145 | 2.21 | 5.31300 | 0.07300 | 0.33580 | 0.00570 | 0.74235 | 1871.0 | 12.0 | 1865.0 | 27.0 | 1869 | 20 | 1869.0 | 20.0 | 0.2 | Single Age |
| MGT02_78 | 181.6 | 1.02 | 3.63000 | 0.06900 | 0.24630 | 0.00370 | 0.81108 | 1557.0 | 15.0 | 1419.0 | 19.0 | 1740 | 18 | 1740.0 | 18.0 | 18.4 | Single Age |
| MGT02_79 | 12.97 | 34.00 | 1.31200 | 0.04500 | 0.14080 | 0.00370 | 0.30362 | 851.0 | 19.0 | 849.0 | 21.0 | 851 | 76 | 849.0 | 21.0 | 0.2 | Single Age |
| MGT02_80 | 186 | 0.87 | 1.36900 | 0.02400 | 0.14540 | 0.00250 | 0.64580 | 875.0 | 10.0 | 875.0 | 14.0 | 865 | 31 | 865.0 | 31.0 | 1.2 | Single Age |
| MGT02_81 | 109.1 | 1.52 | 1.52400 | 0.02800 | 0.15930 | 0.00270 | 0.66427 | 940.0 | 11.0 | 952.0 | 15.0 | 920 | 32 | 920.0 | 32.0 | 3.5 | Single Age |
| MGT02_82 | 326.1 | 28.00 | 0.78700 | 0.02200 | 0.09520 | 0.00190 | 0.19896 | 589.0 | 12.0 | 586.0 | 11.0 | 628 | 69 | 586.0 | 11.0 | 0.5 | Rim |
| MGT02_82 | 64.6 | 1.29 | 1.75300 | 0.04000 | 0.17400 | 0.00340 | 0.68908 | 1030.0 | 14.0 | 1034.0 | 19.0 | 1010 | 41 | 1010.0 | 41.0 | 2.4 | Core |
| MGT02_83 | 36.7 | 1.46 | 10.43000 | 0.13000 | 0.46550 | 0.00710 | 0.77079 | 2474.0 | 12.0 | 2462.0 | 31.0 | 2494 | 17 | 2494.0 | 17.0 | 1.3 | Single Age |
| MGT02_84 | 27.5 | 0.51 | 0.76900 | 0.02400 | 0.08960 | 0.00170 | 0.15170 | 575.0 | 13.0 | 553.0 | 9.9 | 681 | 66 | 553.0 | 9.9 | 3.8 | Single Age |
| MGT02_85 | 119.5 | 1.42 | 5.25700 | 0.07400 | 0.33620 | 0.00620 | 0.66991 | 1864.0 | 12.0 | 1867.0 | 30.0 | 1868 | 26 | 1868.0 | 26.0 | 0.1 | Single Age |
| MGT02_86 | 463 | 6.64 | 0.81000 | 0.01600 | 0.10040 | 0.00320 | 0.74871 | 602.0 | 9.0 | 617.0 | 19.0 | 571 | 44 | 617.0 | 19.0 | 2.5 | Rim |
| MGT02_86 | 174 | 1.40 | 1.39900 | 0.01700 | 0.14700 | 0.00180 | 0.46812 | 888.4 | 7.0 | 884.0 | 10.0 | 907 | 27 | 907.0 | 27.0 | 2.5 | Core |

Table 3 Outer Lesser Himalaya zircon U-Pb Results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MGT02_87 | 114.5 | 1.72 | 2.70700 | 0.05400 | 0.21570 | 0.00380 | 0.74670 | 1330.0 | 15.0 | 1259.0 | 20.0 | 1441 | 25 | 1441.0 | 25.0 | 12.6 | Single Age |
| MGT02_88 | 98.9 | 0.54 | 0.69500 | 0.01200 | 0.08400 | 0.00110 | 0.02931 | 535.0 | 7.0 | 519.8 | 6.3 | 611 | 42 | 519.8 | 6.3 | 2.8 | Single Age |
| MGT02_89 | 112.6 | 1.51 | 9.21000 | 0.15000 | 0.43030 | 0.00740 | 0.76905 | 2358.0 | 15.0 | 2306.0 | 33.0 | 2430 | 19 | 2430.0 | 19.0 | 5.1 | Single Age |
| MGT02_90 | 132.7 | 1.18 | 10.18000 | 0.15000 | 0.45250 | 0.00670 | 0.75759 | 2452.0 | 14.0 | 2405.0 | 30.0 | 2477 | 19 | 2477.0 | 19.0 | 2.9 | Single Age |
| MGT02_91 | 99.7 | 0.80 | 12.52000 | 0.19000 | 0.48220 | 0.00670 | 0.73621 | 2645.0 | 14.0 | 2536.0 | 29.0 | 2710 | 16 | 2710.0 | 16.0 | 6.4 | Single Age |
| MGT02_92 | 91.2 | 0.30 | 5.98200 | 0.09300 | 0.34270 | 0.00570 | 0.75174 | 1971.0 | 13.0 | 1899.0 | 27.0 | 2051 | 21 | 2051.0 | 21.0 | 7.4 | Single Age |
| MGT02_93 | 53.89 | 0.87 | 11.58000 | 0.17000 | 0.48930 | 0.00990 | 0.69341 | 2569.0 | 14.0 | 2570.0 | 42.0 | 2588 | 24 | 2588.0 | 24.0 | 0.7 | Single Age |
| MGT02_94 | 241 | 1.50 | 5.29600 | 0.05500 | 0.33730 | 0.00360 | 0.84130 | 1867.4 | 8.8 | 1873.0 | 17.0 | 1869 | 11 | 1869.0 | 11.0 | 0.2 | Single Age |
| MGT02_95 | 237 | 0.49 | 2.25400 | 0.02500 | 0.20610 | 0.00250 | 0.72921 | 1197.6 | 7.8 | 1208.0 | 13.0 | 1175 | 17 | 1175.0 | 17.0 | 2.8 | Single Age |
| MGT02_96 | 127.1 | 0.77 | 6.16000 | 0.16000 | 0.35100 | 0.00440 | 0.69941 | 1995.0 | 22.0 | 1939.0 | 21.0 | 2068 | 31 | 2068.0 | 31.0 | 6.2 | Single Age |
| MGT02_97 | 128 | 0.95 | 7.51900 | 0.07400 | 0.40140 | 0.00470 | 0.73568 | 2174.8 | 8.8 | 2175.0 | 22.0 | 2182 | 12 | 2182.0 | 12.0 | 0.3 | Single Age |
| MGT02_98 | 110.8 | 0.81 | 6.05300 | 0.08900 | 0.37000 | 0.00610 | 0.70193 | 1985.0 | 13.0 | 2028.0 | 29.0 | 1927 | 23 | 1927.0 | 23.0 | 5.2 | Single Age |
| MGT02_99 | 253 | 1.26 | 5.32200 | 0.06100 | 0.33560 | 0.00350 | 0.70856 | 1871.5 | 9.6 | 1865.0 | 17.0 | 1879 | 12 | 1879.0 | 12.0 | 0.7 | Single Age |
| MGT02_100 | 60 | 0.68 | 16.30000 | 0.16000 | 0.56340 | 0.00530 | 0.84972 | 2894.0 | 9.3 | 2880.0 | 22.0 | 2897 | 10 | 2897.0 | 10.0 | 0.6 | Single Age |
| MGT02_101 | 125.1 | 0.59 | 11.81000 | 0.26000 | 0.44700 | 0.01100 | 0.91487 | 2587.0 | 21.0 | 2377.0 | 51.0 | 2767 | 17 | 2767.0 | 17.0 | 14.1 | Single Age |
| MGT02_102 | 147.7 | 1.37 | 5.30900 | 0.03500 | 0.33820 | 0.00280 | 0.68244 | 1870.0 | 5.7 | 1878.0 | 14.0 | 1868 | 11 | 1868.0 | 11.0 | 0.5 | Single Age |
| MGT02_103 | 25.88 | 0.69 | 5.85300 | 0.06000 | 0.34370 | 0.00420 | 0.37298 | 1953.7 | 8.9 | 1907.0 | 21.0 | 2011 | 23 | 2011.0 | 23.0 | 5.2 | Single Age |
| MGT02_104 | 189 | 4.00 | 0.93500 | 0.03600 | 0.10630 | 0.00410 | 0.63465 | 669.0 | 19.0 | 651.0 | 24.0 | 759 | 71 | 651.0 | 24.0 | 2.7 | Rim |
| MGT02_104 | 58.7 | 0.52 | 1.66600 | 0.04900 | 0.16770 | 0.00520 | 0.64023 | 995.0 | 19.0 | 999.0 | 29.0 | 981 | 53 | 981.0 | 53.0 | 1.8 | Core |
| MGT02_105 | 83.3 | 1.01 | 10.69200 | 0.08400 | 0.47800 | 0.00400 | 0.60080 | 2497.1 | 7.2 | 2518.0 | 18.0 | 2488 | 12 | 2488.0 | 12.0 | 1.2 | Single Age |
| MGT02_106 | 424 | 1.60 | 0.72500 | 0.01400 | 0.09120 | 0.00180 | 0.50557 | 553.2 | 8.3 | 563.0 | 11.0 | 567 | 38 | 563.0 | 11.0 | 1.8 | Rim |
| MGT02_106 | 160.3 | 0.54 | 1.75900 | 0.03600 | 0.17320 | 0.00290 | 0.70116 | 1030.0 | 13.0 | 1030.0 | 16.0 | 1045 | 28 | 1045.0 | 28.0 | 1.4 | Core |
| MGT02_107 | 122.7 | 0.82 | 10.50400 | 0.09800 | 0.46960 | 0.00500 | 0.78271 | 2480.6 | 8.5 | 2484.0 | 22.0 | 2483 | 11 | 2483.0 | 11.0 | 0.0 | Single Age |
| MGT02_108 | 314 | 0.88 | 1.44200 | 0.06900 | 0.15140 | 0.00590 | 0.92790 | 904.0 | 29.0 | 908.0 | 33.0 | 904 | 37 | 904.0 | 37.0 | 0.4 | Single Age |
| MGT02_109 | 93.6 | 1.56 | 10.94000 | 0.45000 | 0.47900 | 0.01600 | 0.77915 | 2521.0 | 40.0 | 2520.0 | 72.0 | 2529 | 37 | 2529.0 | 37.0 | 0.4 | Single Age |
| MGT02_110 | 294 | 1.71 | 0.67500 | 0.00860 | 0.08470 | 0.00110 | 0.60255 | 523.5 | 5.2 | 524.3 | 6.4 | 507 | 26 | 524.3 | 6.4 | 0.2 | Single Age |
| MGT02_111 | 207 | 1.78 | 4.73100 | 0.09700 | 0.31320 | 0.00650 | 0.77462 | 1770.0 | 17.0 | 1755.0 | 32.0 | 1755 | 24 | 1755.0 | 24.0 | 0.0 | Single Age |
| MGT02_114 | 40.8 | 1.04 | 10.56500 | 0.09600 | 0.46210 | 0.00490 | 0.43534 | 2485.0 | 8.4 | 2448.0 | 21.0 | 2518 | 18 | 2518.0 | 18.0 | 2.8 | Single Age |
| MGT02_115 | 264 | 0.97 | 4.67000 | 0.10000 | 0.31160 | 0.00680 | 0.76864 | 1760.0 | 18.0 | 1754.0 | 35.0 | 1740 | 26 | 1740.0 | 26.0 | 0.8 | Single Age |
| MGT02_116 | 111.2 | 2.24 | 6.13000 | 0.15000 | 0.28680 | 0.00660 | 0.90642 | 1992.0 | 21.0 | 1625.0 | 33.0 | 2440 | 18 | DISC | DISC | 33.4 | Single Age |
| MGT02_117 | 88 | 0.75 | 5.46600 | 0.06300 | 0.32500 | 0.00440 | 0.72048 | 1896.0 | 10.0 | 1814.0 | 22.0 | 1982 | 18 | 1982.0 | 18.0 | 8.5 | Single Age |
| MGT02_118 | 362.8 | 1.98 | 1.51100 | 0.01800 | 0.15200 | 0.00190 | 0.77515 | 934.3 | 7.2 | 912.0 | 11.0 | 983 | 17 | 983.0 | 17.0 | 7.2 | Single Age |
| MGT02_119 | 80.6 | 1.06 | 13.23000 | 0.19000 | 0.51240 | 0.00810 | 0.77411 | 2695.0 | 14.0 | 2671.0 | 36.0 | 2716 | 17 | 2716.0 | 17.0 | 1.7 | Single Age |
| MGT02_120 | 35.62 | 0.71 | 13.19000 | 0.23000 | 0.51580 | 0.00930 | 0.66997 | 2691.0 | 17.0 | 2679.0 | 40.0 | 2697 | 24 | 2697.0 | 24.0 | 0.7 | Single Age |
| MGP01_1 | 18.5 | 0.89 | 0.41200 | 0.02600 | 0.01491 | 0.00072 | 0.22579 | 348.0 | 18.0 | 95.4 | 4.6 | 2770 | 120 | DISC | DISC | 72.6 | Single Age |
| MGP01_2 | 187 | 1.91 | 10.29300 | 0.08400 | 0.44580 | 0.00400 | 0.63759 | 2462.0 | 7.4 | 2376.0 | 18.0 | 2532 | 11 | 2532.0 | 11.0 | 6.2 | Single Age |
| MGP01_3 | 254 | 4.06 | 5.22000 | 0.03700 | 0.33240 | 0.00260 | 0.71475 | 1855.6 | 6.0 | 1850.0 | 13.0 | 1861 | 11 | 1861.0 | 11.0 | 0.6 | Single Age |
| MGP01_4 | 151.4 | 0.78 | 3.92800 | 0.04100 | 0.25540 | 0.00260 | 0.74435 | 1620.0 | 8.2 | 1466.0 | 14.0 | 1832 | 14 | 1832.0 | 14.0 | 20.0 | Single Age |
| MGP01_5 | 79.1 | 0.68 | 4.86400 | 0.04900 | 0.29580 | 0.00260 | 0.52749 | 1795.4 | 8.4 | 1670.0 | 13.0 | 1939 | 15 | 1939.0 | 15.0 | 13.9 | Single Age |
| MGP01_6 | 47.7 | 0.57 | 1.14400 | 0.02700 | 0.11830 | 0.00240 | 0.60643 | 776.0 | 13.0 | 721.0 | 14.0 | 977 | 42 | 721.0 | 14.0 | 7.1 | Single Age |
| MGP01_7 | 127.4 | 1.26 | 9.89000 | 0.10000 | 0.44440 | 0.00440 | 0.68885 | 2424.2 | 9.5 | 2370.0 | 20.0 | 2471 | 13 | 2471.0 | 13.0 | 4.1 | Single Age |
| MGP01_8 | 13.58 | 1.07 | 1.37800 | 0.04600 | 0.13500 | 0.00340 | 0.17462 | 880.0 | 19.0 | 816.0 | 20.0 | 1072 | 69 | 816.0 | 20.0 | 7.3 | Single Age |

Table 3 Outer Lesser Himalaya zircon U-Pb Results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MGP01_9 | 69.9 | 0.85 | 11.08000 | 0.11000 | 0.48060 | 0.00530 | 0.80223 | 2530.1 | 8.7 | 2529.0 | 23.0 | 2536 | 11 | 2536.0 | 11.0 | 0.3 | Single Age |
| MGP01_10 | 40.6 | 0.69 | 0.14050 | 0.00810 | 0.01822 | 0.00039 | 0.02828 | 133.0 | 7.2 | 116.4 | 2.5 | 410 | 130 | DISC | DISC | 12.5 | Single Age |
| MGP01_11 | 22.11 | 0.74 | 0.30200 | 0.04500 | 0.01596 | 0.00070 | 0.58840 | 259.0 | 32.0 | 102.7 | 4.3 | 2160 | 210 | DISC | DISC | 60.3 | Single Age |
| MGP01_12 | 206.5 | 1.17 | 5.21600 | 0.03000 | 0.33690 | 0.00200 | 0.34348 | 1855.1 | 5.0 | 1871.7 | 9.6 | 1843 | 12 | 1843.0 | 12.0 | 1.6 | Single Age |
| MGP01_13 | 261.5 | 1.38 | 4.59000 | 0.03100 | 0.31300 | 0.00230 | 0.74806 | 1747.1 | 5.6 | 1755.0 | 11.0 | 1744 | 10 | 1743.9 | 9.7 | 0.6 | Single Age |
| MGP01_14 | 23.55 | 0.54 | 0.12560 | 0.00790 | 0.01845 | 0.00060 | 0.12141 | 119.7 | 7.1 | 117.8 | 3.8 | 180 | 140 | 117.8 | 3.8 | 1.6 | Single Age |
| MGP01_15 | 57 | 0.88 | 2.13200 | 0.02700 | 0.19710 | 0.00230 | 0.30148 | 1158.6 | 8.8 | 1163.0 | 13.0 | 1179 | 28 | 1179.0 | 28.0 | 1.4 | Single Age |
| MGP01_16 | 38.9 | 0.66 | 0.13200 | 0.00710 | 0.01902 | 0.00037 | 0.28763 | 125.5 | 6.4 | 121.5 | 2.4 | 230 | 100 | 121.5 | 2.4 | 3.2 | Single Age |
| MGP01_17 | 83 | 0.98 | 10.91000 | 0.10000 | 0.47670 | 0.00490 | 0.80654 | 2515.2 | 8.5 | 2512.0 | 21.0 | 2522 | 10 | 2522.0 | 10.0 | 0.4 | Single Age |
| MGP01_18 | 159.2 | 0.91 | 14.52000 | 0.11000 | 0.52440 | 0.00440 | 0.75168 | 2784.8 | 7.0 | 2717.0 | 19.0 | 2838 | 9 | 2838.2 | 8.9 | 4.3 | Single Age |
| MGP01_19 | 20.3 | 0.59 | 0.13900 | 0.02100 | 0.01833 | 0.00078 | 0.08242 | 129.0 | 17.0 | 117.1 | 5.0 | 290 | 220 | 117.1 | 5.0 | 9.2 | Single Age |
| MGP01_20 | 177 | 1.05 | 0.14080 | 0.00770 | 0.01416 | 0.00034 | 0.02619 | 133.3 | 6.8 | 90.6 | 2.2 | 940 | 110 | DISC | DISC | 32.0 | Single Age |
| MGP01_21 | 55.41 | 0.63 | 0.16600 | 0.02100 | 0.01848 | 0.00070 | 0.64960 | 154.0 | 17.0 | 118.0 | 4.4 | 680 | 200 | DISC | DISC | 23.4 | Single Age |
| MGP01_22 | 78.7 | 1.30 | 4.22200 | 0.04500 | 0.29300 | 0.00260 | 0.49357 | 1677.6 | 8.8 | 1656.0 | 13.0 | 1713 | 19 | 1713.0 | 19.0 | 3.3 | Single Age |
| MGP01_23 | 23.6 | 2.83 | 1.46800 | 0.04100 | 0.14510 | 0.00250 | 0.32484 | 917.0 | 17.0 | 873.0 | 14.0 | 1028 | 52 | 1028.0 | 52.0 | 15.1 | Single Age |
| MGP01_24 | 59.9 | 0.94 | 2.07600 | 0.02800 | 0.19190 | 0.00200 | 0.06018 | 1140.3 | 9.3 | 1131.0 | 11.0 | 1159 | 32 | 1159.0 | 32.0 | 2.4 | Single Age |
| MGP01_25 | 124.6 | 1.19 | 3.93200 | 0.03300 | 0.27250 | 0.00240 | 0.60086 | 1620.8 | 6.7 | 1553.0 | 12.0 | 1720 | 14 | 1720.0 | 14.0 | 9.7 | Single Age |
| MGP01_26 | 81.6 | 0.51 | 4.56800 | 0.03900 | 0.30980 | 0.00220 | 0.45835 | 1743.1 | 7.1 | 1740.0 | 11.0 | 1760 | 15 | 1760.0 | 15.0 | 1.1 | Single Age |
| MGP01_27 | 42.3 | 0.34 | 0.64000 | 0.01600 | 0.08060 | 0.00120 | 0.29945 | 503.0 | 10.0 | 499.5 | 7.0 | 513 | 60 | 499.5 | 7.0 | 0.7 | Single Age |
| MGP01_28 | 107.2 | 0.55 | 4.47000 | 0.03900 | 0.30780 | 0.00240 | 0.58620 | 1725.9 | 7.3 | 1730.0 | 12.0 | 1731 | 14 | 1731.0 | 14.0 | 0.1 | Single Age |
| MGP01_29 | 73.4 | 0.42 | 9.67300 | 0.06300 | 0.43560 | 0.00310 | 0.43573 | 2404.7 | 6.2 | 2331.0 | 14.0 | 2476 | 12 | 2476.0 | 12.0 | 5.9 | Single Age |
| MGP01_30 | 131.7 | 0.91 | 5.38900 | 0.04100 | 0.33650 | 0.00310 | 0.58927 | 1882.9 | 6.5 | 1869.0 | 15.0 | 1902 | 15 | 1902.0 | 15.0 | 1.7 | Single Age |
| MGP01_31 | 78.6 | 0.76 | 10.65000 | 0.13000 | 0.47210 | 0.00710 | 0.86711 | 2492.0 | 11.0 | 2492.0 | 31.0 | 2495 | 20 | 2495.0 | 20.0 | 0.1 | Single Age |
| MGP01_32 | 176.6 | 0.86 | 1.90500 | 0.01500 | 0.17760 | 0.00140 | 0.41337 | 1083.4 | 5.0 | 1053.8 | 7.5 | 1143 | 16 | 1143.0 | 16.0 | 7.8 | Single Age |
| MGP01_33 | 112.6 | 1.00 | 3.57600 | 0.04000 | 0.26950 | 0.00340 | 0.54670 | 1544.0 | 8.8 | 1538.0 | 17.0 | 1560 | 21 | 1560.0 | 21.0 | 1.4 | Single Age |
| MGP01_34 | 53.3 | 0.60 | 9.21100 | 0.07500 | 0.40490 | 0.00360 | 0.54552 | 2358.8 | 7.4 | 2191.0 | 17.0 | 2506 | 14 | 2506.0 | 14.0 | 12.6 | Single Age |
| MGP01_35 | 138 | 0.43 | 10.64900 | 0.09400 | 0.46950 | 0.00470 | 0.68210 | 2492.6 | 8.2 | 2481.0 | 21.0 | 2509 | 11 | 2509.0 | 11.0 | 1.1 | Single Age |
| MGP01_36 | 177.3 | 1.05 | 1.63900 | 0.01500 | 0.16440 | 0.00130 | 0.42064 | 985.9 | 5.7 | 980.8 | 7.5 | 997 | 19 | 997.0 | 19.0 | 1.6 | Single Age |
| MGP01_37 | 172.5 | 0.83 | 1.64200 | 0.02000 | 0.16640 | 0.00150 | 0.57406 | 986.0 | 7.8 | 992.4 | 8.5 | 990 | 21 | 990.0 | 21.0 | 0.2 | Single Age |
| MGP01_38 | 251.2 | 2.07 | 1.30900 | 0.01100 | 0.14029 | 0.00099 | 0.45446 | 849.5 | 4.7 | 846.2 | 5.6 | 855 | 16 | 846.2 | 5.6 | 0.4 | Single Age |
| MGP01_39 | 65 | 0.66 | 10.99600 | 0.09300 | 0.48090 | 0.00420 | 0.75520 | 2523.1 | 7.7 | 2531.0 | 18.0 | 2522 | 11 | 2522.0 | 11.0 | 0.4 | Single Age |
| MGP01_40 | 59.5 | 0.77 | 0.13470 | 0.00670 | 0.01845 | 0.00042 | 0.04824 | 128.9 | 5.8 | 117.9 | 2.7 | 310 | 100 | 117.9 | 2.7 | 8.5 | Single Age |
| MGP01_41 | 175.8 | 1.46 | 7.72600 | 0.05500 | 0.40830 | 0.00430 | 0.63161 | 2200.5 | 6.2 | 2207.0 | 20.0 | 2190 | 16 | 2190.0 | 16.0 | 0.8 | Single Age |
| MGP01_42 | 37.2 | 0.63 | 0.15580 | 0.00870 | 0.01794 | 0.00049 | 0.24115 | 146.4 | 7.6 | 114.6 | 3.1 | 650 | 130 | DISC | DISC | 21.7 | Single Age |
| MGP01_43 | 97.9 | 1.07 | 2.58300 | 0.03300 | 0.21830 | 0.00220 | 0.54071 | 1296.8 | 9.6 | 1273.0 | 12.0 | 1332 | 20 | 1332.0 | 20.0 | 4.4 | Single Age |
| MGP01_44 | 91.3 | 0.76 | 4.47100 | 0.04400 | 0.30650 | 0.00250 | 0.49786 | 1726.1 | 7.9 | 1723.0 | 12.0 | 1731 | 16 | 1731.0 | 16.0 | 0.5 | Single Age |
| MGP01_45 | 44.8 | 0.68 | 0.13400 | 0.01000 | 0.01761 | 0.00044 | 0.10924 | 126.8 | 8.9 | 112.6 | 2.8 | 290 | 130 | DISC | DISC | 11.2 | Single Age |
| MGP01_46 | 93.1 | 0.36 | 4.69200 | 0.05300 | 0.31300 | 0.00350 | 0.59422 | 1766.6 | 9.7 | 1755.0 | 17.0 | 1792 | 18 | 1792.0 | 18.0 | 2.1 | Single Age |
| MGP01_47 | 101.3 | 0.56 | 1.52100 | 0.01700 | 0.15660 | 0.00150 | 0.30917 | 940.0 | 6.4 | 938.0 | 8.3 | 936 | 25 | 936.0 | 25.0 | 0.2 | Single Age |
| MGP01_48 | 128.9 | 0.96 | 4.05400 | 0.04000 | 0.29140 | 0.00310 | 0.71311 | 1644.4 | 8.2 | 1648.0 | 15.0 | 1630 | 16 | 1630.0 | 16.0 | 1.1 | Single Age |
| MGP01_49 | 18.6 | 0.70 | 0.13600 | 0.01300 | 0.01858 | 0.00084 | 0.04787 | 130.0 | 11.0 | 118.6 | 5.3 | 360 | 190 | 118.6 | 5.3 | 8.8 | Single Age |
| MGP01_50 | 25.5 | 0.87 | 5.75400 | 0.07600 | 0.35470 | 0.00480 | 0.38486 | 1940.0 | 11.0 | 1956.0 | 23.0 | 1925 | 27 | 1925.0 | 27.0 | 1.6 | Single Age |

Table 3 Outer Lesser Himalaya zircon U-Pb Results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MGP01_51 | 150.1 | 0.87 | 4.34900 | 0.05200 | 0.30150 | 0.00290 | 0.37426 | 1704.1 | 9.5 | 1698.0 | 14.0 | 1720 | 22 | 1720.0 | 22.0 | 1.3 | Single Age |
| MGP01_52 | 225 | 0.61 | 0.14130 | 0.00350 | 0.01956 | 0.00037 | 0.43363 | 134.2 | 3.1 | 124.9 | 2.4 | 253 | 57 | 124.9 | 2.4 | 6.9 | Single Age |
| MGP01_53 | 69.4 | 1.14 | 9.08300 | 0.05900 | 0.43040 | 0.00300 | 0.59320 | 2346.1 | 5.9 | 2307.0 | 14.0 | 2388 | 11 | 2388.0 | 11.0 | 3.4 | Single Age |
| MGP01_54 | 192 | 1.59 | 4.43000 | 0.10000 | 0.30300 | 0.00750 | 0.79974 | 1717.0 | 20.0 | 1705.0 | 37.0 | 1745 | 26 | 1745.0 | 26.0 | 2.3 | Single Age |
| MGP01_55 | 176.9 | 0.24 | 0.62890 | 0.00840 | 0.07933 | 0.00067 | 0.36224 | 495.2 | 5.2 | 492.1 | 4.0 | 525 | 29 | 492.1 | 4.0 | 0.6 | Single Age |
| MGP01_56 | 111.1 | 1.33 | 3.61800 | 0.03300 | 0.26310 | 0.00190 | 0.43270 | 1554.0 | 7.1 | 1505.6 | 9.8 | 1627 | 16 | 1627.0 | 16.0 | 7.5 | Single Age |
| MGP01_57 | 20.71 | 0.57 | 0.16600 | 0.01300 | 0.01895 | 0.00066 | 0.01009 | 155.0 | 11.0 | 121.0 | 4.2 | 650 | 180 | DISC | DISC | 21.9 | Single Age |
| MGP01_58 | 134.7 | 1.41 | 1.88700 | 0.03000 | 0.18050 | 0.00290 | 0.78105 | 1076.0 | 11.0 | 1070.0 | 16.0 | 1098 | 26 | 1098.0 | 26.0 | 2.6 | Single Age |
| MGP01_59 | 192.3 | 1.95 | 5.21500 | 0.06200 | 0.33190 | 0.00470 | 0.72963 | 1854.0 | 10.0 | 1847.0 | 23.0 | 1871 | 18 | 1871.0 | 18.0 | 1.3 | Single Age |
| MGP01_60 | 47 | 0.82 | 1.59200 | 0.02900 | 0.15930 | 0.00220 | 0.18428 | 967.0 | 12.0 | 953.0 | 12.0 | 1002 | 50 | 1002.0 | 50.0 | 4.9 | Single Age |
| MGP01_61 | 96.6 | 2.21 | 12.31000 | 0.11000 | 0.50140 | 0.00420 | 0.75720 | 2627.9 | 8.5 | 2620.0 | 18.0 | 2644 | 10 | 2644.0 | 10.0 | 0.9 | Single Age |
| MGP01_62 | 55 | 0.90 | 2.19700 | 0.03800 | 0.19910 | 0.00290 | 0.50978 | 1179.0 | 12.0 | 1170.0 | 16.0 | 1186 | 32 | 1186.0 | 32.0 | 1.3 | Single Age |
| MGP01_63 | 98.5 | 1.28 | 2.68600 | 0.03000 | 0.22610 | 0.00270 | 0.31134 | 1324.0 | 8.4 | 1314.0 | 14.0 | 1351 | 24 | 1351.0 | 24.0 | 2.7 | Single Age |
| MGP01_64 | 19.5 | 0.72 | 0.13200 | 0.01300 | 0.01840 | 0.00100 | 0.19527 | 126.0 | 11.0 | 117.5 | 6.4 | 430 | 230 | 117.5 | 6.4 | 6.7 | Single Age |
| MGP01_65 | 131.4 | 0.86 | 5.33000 | 0.03900 | 0.33980 | 0.00230 | 0.68328 | 1873.4 | 6.3 | 1886.0 | 11.0 | 1860 | 11 | 1860.0 | 11.0 | 1.4 | Single Age |
| MGP01_66 | 392 | 7.80 | 5.96500 | 0.03300 | 0.35770 | 0.00230 | 0.69724 | 1970.5 | 4.8 | 1971.0 | 11.0 | 1973 | 10 | 1972.5 | 9.6 | 0.1 | Single Age |
| MGP01_67 | 162.3 | 0.75 | 4.45600 | 0.03400 | 0.29800 | 0.00280 | 0.61448 | 1723.5 | 6.6 | 1681.0 | 14.0 | 1775 | 14 | 1775.0 | 14.0 | 5.3 | Single Age |
| MGP01_68 | 305.7 | 3.37 | 5.44700 | 0.04700 | 0.34440 | 0.00350 | 0.70305 | 1891.9 | 7.4 | 1907.0 | 17.0 | 1870 | 11 | 1870.0 | 11.0 | 2.0 | Single Age |
| MGP01_69 | 87.9 | 0.65 | 0.12580 | 0.00350 | 0.01847 | 0.00035 | 0.04964 | 120.2 | 3.2 | 118.0 | 2.2 | 201 | 72 | 118.0 | 2.2 | 1.8 | Single Age |
| MGP01_70 | 387 | 1.70 | 3.03300 | 0.03200 | 0.24650 | 0.00310 | 0.89870 | 1415.6 | 8.2 | 1420.0 | 16.0 | 1420 | 12 | 1420.0 | 12.0 | 0.0 | Single Age |
| MGP01_71 | 177.8 | 1.56 | 4.95200 | 0.04200 | 0.31280 | 0.00260 | 0.77189 | 1811.7 | 7.3 | 1754.0 | 13.0 | 1884 | 12 | 1884.0 | 12.0 | 6.9 | Single Age |
| MGP01_72 | 236 | 3.45 | 4.64500 | 0.02800 | 0.30620 | 0.00220 | 0.50899 | 1757.2 | 5.0 | 1722.0 | 11.0 | 1808 | 13 | 1808.0 | 13.0 | 4.8 | Single Age |
| MGP01_73 | 201 | 1.06 | 4.09600 | 0.04000 | 0.29430 | 0.00280 | 0.52114 | 1653.0 | 7.9 | 1663.0 | 14.0 | 1653 | 18 | 1653.0 | 18.0 | 0.6 | Single Age |
| MGP01_74 | 73.5 | 1.03 | 5.03100 | 0.04700 | 0.32780 | 0.00320 | 0.44219 | 1824.0 | 7.8 | 1828.0 | 16.0 | 1814 | 18 | 1814.0 | 18.0 | 0.8 | Single Age |
| MGP01_75 | 75.4 | 0.40 | 0.64000 | 0.01200 | 0.08090 | 0.00096 | 0.17923 | 501.8 | 7.4 | 501.5 | 5.7 | 514 | 46 | 501.5 | 5.7 | 0.1 | Single Age |
| MGP01_76 | 176 | 0.99 | 4.11100 | 0.03800 | 0.28080 | 0.00240 | 0.67955 | 1657.9 | 7.5 | 1595.0 | 12.0 | 1744 | 13 | 1744.0 | 13.0 | 8.5 | Single Age |
| MGP01_77 | 31.01 | 0.95 | 0.11500 | 0.01200 | 0.01641 | 0.00077 | 0.16678 | 110.0 | 11.0 | 104.9 | 4.9 | 260 | 230 | 104.9 | 4.9 | 4.6 | Single Age |
| MGP01_78 | 36.2 | 1.32 | 10.47000 | 0.17000 | 0.45210 | 0.00600 | 0.76940 | 2478.0 | 15.0 | 2404.0 | 27.0 | 2542 | 16 | 2542.0 | 16.0 | 5.4 | Single Age |
| MGP01_79 | 289 | 1.20 | 7.55700 | 0.09200 | 0.39930 | 0.00490 | 0.71786 | 2179.0 | 11.0 | 2165.0 | 22.0 | 2199 | 16 | 2199.0 | 16.0 | 1.5 | Single Age |
| MGP01_80 | 128.2 | 0.59 | 1.87400 | 0.01800 | 0.17480 | 0.00180 | 0.53647 | 1071.5 | 6.2 | 1038.0 | 10.0 | 1139 | 18 | 1139.0 | 18.0 | 8.9 | Single Age |
| MGP01_81 | 92 | 0.65 | 4.07900 | 0.03300 | 0.29050 | 0.00260 | 0.40647 | 1649.6 | 6.6 | 1644.0 | 13.0 | 1671 | 18 | 1671.0 | 18.0 | 1.6 | Single Age |
| MGP01_82 | 352 | 1.30 | 3.20700 | 0.02900 | 0.25300 | 0.00230 | 0.74704 | 1458.4 | 7.1 | 1454.0 | 12.0 | 1471 | 15 | 1471.0 | 15.0 | 1.2 | Single Age |
| MGP01_83 | 19.3 | 0.66 | 0.15400 | 0.01300 | 0.01780 | 0.00074 | 0.04461 | 144.0 | 12.0 | 113.7 | 4.7 | 700 | 190 | DISC | DISC | 21.0 | Single Age |
| MGP01_84 | 49 | 1.51 | 14.82000 | 0.12000 | 0.53380 | 0.00440 | 0.69975 | 2803.1 | 7.7 | 2760.0 | 19.0 | 2830 | 11 | 2830.0 | 11.0 | 2.5 | Single Age |
| MGP01_85 | 51 | 0.71 | 5.02900 | 0.04700 | 0.32110 | 0.00320 | 0.50307 | 1823.7 | 8.0 | 1795.0 | 16.0 | 1851 | 18 | 1851.0 | 18.0 | 3.0 | Single Age |
| MGP01_86 | 142 | 0.55 | 1.34300 | 0.01400 | 0.14260 | 0.00120 | 0.41858 | 864.4 | 6.2 | 859.2 | 6.5 | 878 | 22 | 878.0 | 22.0 | 2.1 | Single Age |
| MGP01_87 | 81.6 | 0.79 | 5.11300 | 0.05000 | 0.32510 | 0.00310 | 0.30839 | 1838.8 | 8.0 | 1814.0 | 15.0 | 1862 | 17 | 1862.0 | 17.0 | 2.6 | Single Age |
| MGP01_88 | 385 | 2.82 | 1.56400 | 0.02300 | 0.15850 | 0.00150 | 0.73675 | 955.8 | 9.3 | 950.6 | 9.1 | 973 | 21 | 973.0 | 21.0 | 2.3 | Single Age |
| MGP01_89 | 295 | 2.38 | 4.92300 | 0.03800 | 0.31200 | 0.00250 | 0.71134 | 1805.9 | 6.5 | 1751.0 | 12.0 | 1871 | 11 | 1871.0 | 11.0 | 6.4 | Single Age |
| MGP01_90 | 97.8 | 0.73 | 4.18400 | 0.03500 | 0.28960 | 0.00240 | 0.55175 | 1670.4 | 7.0 | 1639.0 | 12.0 | 1705 | 17 | 1705.0 | 17.0 | 3.9 | Single Age |
| MGP01_91 | 75.9 | 1.16 | 2.95700 | 0.03200 | 0.23820 | 0.00240 | 0.49644 | 1396.1 | 8.2 | 1377.0 | 12.0 | 1433 | 21 | 1433.0 | 21.0 | 3.9 | Single Age |
| MGP01_92 | 156 | 1.20 | 0.70300 | 0.00850 | 0.08580 | 0.00100 | 0.65666 | 540.3 | 5.1 | 530.8 | 6.1 | 587 | 22 | 530.8 | 6.1 | 1.8 | Single Age |

Table 3 Outer Lesser Himalaya zircon U-Pb Results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MGP01_93 | 227.9 | 1.61 | 4.31000 | 0.13000 | 0.27140 | 0.00850 | 0.96828 | 1689.0 | 26.0 | 1545.0 | 43.0 | 1875 | 12 | 1875.0 | 12.0 | 17.6 | Single Age |
| MGP01_94 | 40 | 0.99 | 0.13000 | 0.00930 | 0.01674 | 0.00056 | 0.36709 | 123.5 | 8.3 | 107.0 | 3.5 | 420 | 160 | DISC | DISC | 13.4 | Single Age |
| MGP01_95 | 49.1 | 1.14 | 5.10700 | 0.06200 | 0.32410 | 0.00410 | 0.53819 | 1838.0 | 10.0 | 1809.0 | 20.0 | 1868 | 20 | 1868.0 | 20.0 | 3.2 | Single Age |
| MGP01_96 | 161.1 | 0.57 | 3.01300 | 0.02700 | 0.22730 | 0.00220 | 0.57849 | 1410.6 | 6.9 | 1320.0 | 12.0 | 1554 | 15 | 1554.0 | 15.0 | 15.1 | Single Age |
| MGP01_97 | 136.5 | 1.44 | 2.98900 | 0.05500 | 0.24340 | 0.00490 | 0.75183 | 1404.0 | 14.0 | 1404.0 | 25.0 | 1415 | 26 | 1415.0 | 26.0 | 0.8 | Single Age |
| MGP01_99 | 627 | 2.63 | 3.08900 | 0.02900 | 0.24510 | 0.00210 | 0.67269 | 1429.7 | 7.2 | 1413.0 | 11.0 | 1459 | 13 | 1459.0 | 13.0 | 3.2 | Single Age |
| MGP01_100 | 36.4 | 1.06 | 0.13120 | 0.00670 | 0.01839 | 0.00045 | 0.06964 | 124.9 | 6.0 | 117.5 | 2.8 | 240 | 110 | 117.5 | 2.8 | 5.9 | Single Age |
| MGP01_101 | 233.4 | 1.21 | 4.88200 | 0.03600 | 0.30990 | 0.00240 | 0.68546 | 1800.5 | 6.2 | 1740.0 | 12.0 | 1877 | 11 | 1877.0 | 11.0 | 7.3 | Single Age |
| MGP01_102 | 81.1 | 1.00 | 5.35400 | 0.06500 | 0.32680 | 0.00320 | 0.57150 | 1878.0 | 10.0 | 1822.0 | 16.0 | 1937 | 18 | 1937.0 | 18.0 | 5.9 | Single Age |
| MGP01_103 | 35.3 | 0.85 | 0.11850 | 0.00770 | 0.01717 | 0.00045 | 0.08900 | 113.3 | 7.0 | 109.7 | 2.8 | 200 | 130 | 109.7 | 2.8 | 3.2 | Single Age |
| MGP01_104 | 50.1 | 0.67 | 0.12670 | 0.00640 | 0.01876 | 0.00043 | 0.20639 | 120.8 | 5.8 | 119.8 | 2.7 | 170 | 100 | 119.8 | 2.7 | 0.8 | Single Age |
| MGP01_105 | 77.6 | 0.90 | 12.28600 | 0.08100 | 0.48000 | 0.00430 | 0.48967 | 2626.2 | 6.2 | 2529.0 | 18.0 | 2706 | 12 | 2706.0 | 12.0 | 6.5 | Single Age |
| MGP01_107 | 317 | 1.39 | 2.89900 | 0.02600 | 0.21420 | 0.00250 | 0.79605 | 1381.3 | 6.9 | 1251.0 | 13.0 | 1591 | 13 | 1591.0 | 13.0 | 21.4 | Single Age |
| MGP01_108 | 854 | 12.84 | 2.01700 | 0.01300 | 0.18240 | 0.00130 | 0.68065 | 1121.2 | 4.5 | 1079.8 | 7.0 | 1199 | 11 | 1199.0 | 11.0 | 9.9 | Single Age |
| MGP01_109 | 244 | 1.42 | 4.14000 | 0.04400 | 0.28300 | 0.00420 | 0.73113 | 1661.8 | 8.6 | 1606.0 | 21.0 | 1740 | 18 | 1740.0 | 18.0 | 7.7 | Single Age |
| MGP01_110 | 93.5 | 1.18 | 5.14800 | 0.04000 | 0.32270 | 0.00280 | 0.49116 | 1843.8 | 6.6 | 1803.0 | 14.0 | 1882 | 15 | 1882.0 | 15.0 | 4.2 | Single Age |
| MGP01_112 | 300 | 1.20 | 5.02600 | 0.03800 | 0.31980 | 0.00260 | 0.74994 | 1824.1 | 6.3 | 1789.0 | 13.0 | 1861 | 9 | 1860.6 | 9.3 | 3.8 | Single Age |
| MGP01_113 | 589 | 0.80 | 0.12760 | 0.00210 | 0.01880 | 0.00031 | 0.26347 | 121.9 | 1.9 | 120.0 | 1.9 | 176 | 44 | 120.0 | 1.9 | 1.6 | Single Age |
| MGP01_114 | 201.8 | 2.29 | 10.17300 | 0.08600 | 0.45980 | 0.00530 | 0.54476 | 2450.3 | 7.8 | 2438.0 | 24.0 | 2460 | 18 | 2460.0 | 18.0 | 0.9 | Single Age |
| MGP01_115 | 58.9 | 0.63 | 1.96900 | 0.02400 | 0.17690 | 0.00200 | 0.49072 | 1104.3 | 8.1 | 1051.0 | 11.0 | 1215 | 25 | 1215.0 | 25.0 | 13.5 | Single Age |
| MGP01_116 | 20.8 | 0.52 | 0.23000 | 0.01900 | 0.01823 | 0.00065 | 0.22777 | 208.0 | 15.0 | 116.4 | 4.1 | 1460 | 190 | DISC | DISC | 44.0 | Single Age |
| MGP01_117 | 287.8 | 1.74 | 1.78900 | 0.01500 | 0.17400 | 0.00160 | 0.56572 | 1041.3 | 5.4 | 1035.2 | 8.7 | 1049 | 15 | 1049.0 | 15.0 | 1.3 | Single Age |
| MGP01_118 | 502 | 3.44 | 1.48630 | 0.00980 | 0.15370 | 0.00140 | 0.61136 | 924.7 | 4.0 | 921.9 | 7.7 | 940 | 15 | 940.0 | 15.0 | 1.9 | Single Age |
| MGP01_120 | 58 | 1.19 | 4.57600 | 0.05800 | 0.29240 | 0.00350 | 0.68915 | 1744.0 | 11.0 | 1653.0 | 17.0 | 1865 | 17 | 1865.0 | 17.0 | 11.4 | Single Age |
| BRI01_1 | 620 | 0.85 | 0.58130 | 0.00900 | 0.07430 | 0.00100 | 0.48183 | 465.1 | 5.8 | 462.2 | 6.0 | 471 | 36 | 462.2 | 6.0 | 0.6 | Single Age |
| BRI01_3 | 688 | 1.33 | 0.58500 | 0.00640 | 0.07295 | 0.00082 | 0.59712 | 467.6 | 4.1 | 453.9 | 4.9 | 535 | 22 | 453.9 | 4.9 | 2.9 | Single Age |
| BRI01_4 | 1120 | 0.80 | 0.59910 | 0.00540 | 0.07639 | 0.00069 | 0.28484 | 476.5 | 3.4 | 474.5 | 4.2 | 492 | 22 | 474.5 | 4.2 | 0.4 | Single Age |
| BRI01_6 | 2140 | 1.13 | 0.59340 | 0.00470 | 0.07492 | 0.00087 | 0.54403 | 473.0 | 3.0 | 465.7 | 5.2 | 507 | 23 | 465.7 | 5.2 | 1.5 | Single Age |
| BRI01_7 | 2670 | 1.06 | 0.56220 | 0.00440 | 0.07082 | 0.00048 | 0.29330 | 452.9 | 2.8 | 441.1 | 2.9 | 524 | 16 | 441.1 | 2.9 | 2.6 | Single Age |
| BRI01_8 | 1529 | 0.62 | 0.58210 | 0.00570 | 0.07407 | 0.00079 | 0.59320 | 465.8 | 3.7 | 460.6 | 4.7 | 493 | 19 | 460.6 | 4.7 | 1.1 | Single Age |
| BRI01_9 | 801 | 0.72 | 0.57880 | 0.00810 | 0.07373 | 0.00090 | 0.47276 | 463.6 | 5.2 | 458.6 | 5.4 | 503 | 28 | 458.6 | 5.4 | 1.1 | Single Age |
| BRI01_10 | 787 | 1.23 | 0.60580 | 0.00550 | 0.07635 | 0.00063 | 0.65974 | 480.8 | 3.5 | 474.3 | 3.8 | 500 | 17 | 474.3 | 3.8 | 1.4 | Single Age |
| BRI01_11 | 3170 | 0.64 | 0.54210 | 0.00410 | 0.06824 | 0.00049 | 0.77305 | 439.8 | 2.7 | 425.9 | 3.0 | 510 | 12 | 425.9 | 3.0 | 3.2 | Single Age |
| BRI01_12 | 1590 | 0.97 | 0.61160 | 0.00680 | 0.07689 | 0.00098 | 0.69097 | 484.5 | 4.3 | 477.5 | 5.9 | 497 | 20 | 477.5 | 5.9 | 1.4 | Single Age |
| BRI01_13 | 839 | 3.00 | 0.62040 | 0.00550 | 0.07829 | 0.00079 | 0.49487 | 490.4 | 3.5 | 485.8 | 4.7 | 509 | 21 | 485.8 | 4.7 | 0.9 | Single Age |
| BRI01_14 | 1193 | 0.78 | 0.58470 | 0.00470 | 0.07419 | 0.00073 | 0.54305 | 467.8 | 3.1 | 461.3 | 4.4 | 493 | 19 | 461.3 | 4.4 | 1.4 | Single Age |
| BRI01_15 | 1250 | 0.82 | 0.58520 | 0.00930 | 0.07420 | 0.00140 | 0.79543 | 467.6 | 5.9 | 461.2 | 8.6 | 504 | 25 | 461.2 | 8.6 | 1.4 | Single Age |
| BRI01_16 | 4150 | 1.47 | 0.58580 | 0.00510 | 0.07314 | 0.00076 | 0.78651 | 468.1 | 3.3 | 455.0 | 4.6 | 524 | 19 | 455.0 | 4.6 | 2.8 | Single Age |
| BRI01_17 | 755 | 0.81 | 0.59670 | 0.00580 | 0.07540 | 0.00074 | 0.56658 | 475.0 | 3.7 | 469.1 | 4.3 | 502 | 21 | 469.1 | 4.3 | 1.2 | Single Age |
| BRI01_18 | 2200 | 0.78 | 0.57400 | 0.01000 | 0.07310 | 0.00150 | 0.79738 | 460.5 | 6.7 | 455.0 | 8.9 | 497 | 27 | 455.0 | 8.9 | 1.2 | Single Age |
| BRI01_20 | 815 | 0.64 | 0.58650 | 0.00890 | 0.07450 | 0.00120 | 0.60390 | 469.4 | 5.5 | 463.2 | 7.4 | 478 | 32 | 463.2 | 7.4 | 1.3 | Single Age |
| BRI01_21 | 487 | 1.00 | 0.56600 | 0.01100 | 0.07230 | 0.00130 | 0.59323 | 455.6 | 6.9 | 449.8 | 7.8 | 478 | 36 | 449.8 | 7.8 | 1.3 | Single Age |

Table 3 Outer Lesser Himalaya zircon U-Pb Results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BRI01_22 | 1870 | 6.14 | - | - | - | - | - | - | - | - | - | 536 | 14 | - | - | - | Single Age |
| BRI01_24 | 1358 | 0.61 | 0.56210 | 0.00450 | 0.07153 | 0.00055 | 0.79790 | 452.8 | 3.0 | 445.4 | 3.3 | 485 | 13 | 445.4 | 3.3 | 1.6 | Single Age |
| BRI01_25 | 687 | 0.88 | 0.56120 | 0.00750 | 0.07148 | 0.00074 | 0.78661 | 452.2 | 4.9 | 445.0 | 4.5 | 477 | 21 | 445.0 | 4.5 | 1.6 | Single Age |

Table 4 Main Central Thrust hanging wall zircon U-Pb results

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STJ02_1 | 198 | 2.92 | 5.06500 | 0.07600 | 0.32280 | 0.00530 | 0.85481 | 1829.0 | 13.0 | 1803.0 | 26.0 | 1864 | 16 | 1864.0 | 16.0 | 3.3 | Single Age |
| STJ02_2 | 126.8 | 0.82 | 2.98000 | 0.02200 | 0.24470 | 0.00150 | 0.39090 | 1403.7 | 5.5 | 1411.0 | 7.6 | 1400 | 15 | 1400.0 | 15.0 | 0.8 | Single Age |
| STJ02_3 | 110.9 | 0.67 | 2.73800 | 0.03000 | 0.22510 | 0.00250 | 0.58679 | 1338.2 | 8.3 | 1308.0 | 13.0 | 1393 | 21 | 1393.0 | 21.0 | 6.1 | Single Age |
| STJ02_4 | 153.3 | 0.75 | 2.42900 | 0.07100 | 0.19070 | 0.00540 | 0.90508 | 1247.0 | 21.0 | 1128.0 | 29.0 | 1485 | 19 | 1485.0 | 19.0 | 24.0 | Single Age |
| STJ02_5 | 404 | 1.16 | 3.99400 | 0.04200 | 0.28660 | 0.00330 | 0.83345 | 1632.5 | 8.6 | 1624.0 | 17.0 | 1631 | 12 | 1631.0 | 12.0 | 0.4 | Single Age |
| STJ02_6 | 397 | 0.99 | 10.79700 | 0.07200 | 0.45810 | 0.00420 | 0.60104 | 2505.5 | 6.2 | 2433.0 | 19.0 | 2567 | 11 | 2567.0 | 11.0 | 5.2 | Single Age |
| STJ02_7 | 234.5 | 1.57 | 2.02100 | 0.02000 | 0.18740 | 0.00160 | 0.65694 | 1122.3 | 6.7 | 1107.4 | 8.8 | 1154 | 15 | 1154.0 | 15.0 | 4.0 | Single Age |
| STJ02_8 | 260 | 1.01 | 4.03000 | 0.10000 | 0.28140 | 0.00600 | 0.57924 | 1639.0 | 21.0 | 1598.0 | 30.0 | 1694 | 31 | 1694.0 | 31.0 | 5.7 | Single Age |
| STJ02_9 | 74.3 | 0.84 | 4.20500 | 0.06500 | 0.28800 | 0.00340 | 0.67123 | 1674.0 | 13.0 | 1631.0 | 17.0 | 1720 | 23 | 1720.0 | 23.0 | 5.2 | Single Age |
| STJ02_10 | 103.2 | 1.25 | 3.75400 | 0.03100 | 0.27040 | 0.00190 | 0.24971 | 1582.6 | 6.5 | 1542.8 | 9.7 | 1637 | 18 | 1637.0 | 18.0 | 5.8 | Single Age |
| STJ02_11 | 314 | 0.88 | 9.35000 | 0.04900 | 0.42720 | 0.00260 | 0.49235 | 2372.9 | 4.8 | 2293.0 | 12.0 | 2440 | 10 | 2440.3 | 9.8 | 6.0 | Single Age |
| STJ02_12 | 357 | 0.89 | 3.96400 | 0.03700 | 0.27940 | 0.00280 | 0.80902 | 1627.4 | 7.3 | 1588.0 | 14.0 | 1662 | 11 | 1662.0 | 11.0 | 4.5 | Single Age |
| STJ02_13 | 459.8 | 1.32 | 5.26800 | 0.05800 | 0.33290 | 0.00350 | 0.73786 | 1863.2 | 9.4 | 1852.0 | 17.0 | 1878 | 17 | 1878.0 | 17.0 | 1.4 | Single Age |
| STJ02_14 | 1060 | 8.21 | 4.78800 | 0.04100 | 0.30350 | 0.00270 | 0.84363 | 1782.3 | 7.2 | 1708.0 | 14.0 | 1859 | 9 | 1859.0 | 9.4 | 8.1 | Single Age |
| STJ02_15 | 48.3 | 0.58 | 3.13000 | 0.04000 | 0.24990 | 0.00310 | 0.44139 | 1441.0 | 10.0 | 1440.0 | 16.0 | 1429 | 26 | 1429.0 | 26.0 | 0.8 | Single Age |
| STJ02_16 | 98.2 | 1.73 | 4.40000 | 0.04100 | 0.30340 | 0.00260 | 0.42313 | 1713.2 | 8.0 | 1708.0 | 13.0 | 1716 | 18 | 1716.0 | 18.0 | 0.5 | Single Age |
| STJ02_17 | 78 | 0.99 | 1.98300 | 0.03700 | 0.18440 | 0.00230 | 0.60799 | 1109.0 | 12.0 | 1091.0 | 13.0 | 1151 | 27 | 1151.0 | 27.0 | 5.2 | Single Age |
| STJ02_18 | 745 | 1.15 | 4.32500 | 0.03500 | 0.29480 | 0.00250 | 0.75805 | 1697.9 | 6.7 | 1665.0 | 13.0 | 1735 | 11 | 1735.0 | 11.0 | 4.0 | Single Age |
| STJ02_19 | 239 | 1.34 | 5.25000 | 0.03500 | 0.32950 | 0.00260 | 0.67954 | 1860.4 | 5.7 | 1836.0 | 13.0 | 1877 | 11 | 1877.0 | 11.0 | 2.2 | Single Age |
| STJ02_20 | 49.1 | 0.64 | 1.92700 | 0.02400 | 0.18320 | 0.00230 | 0.36745 | 1091.2 | 8.2 | 1088.0 | 13.0 | 1091 | 29 | 1091.0 | 29.0 | 0.3 | Single Age |
| STJ02_21 | 440 | 1.18 | 4.03800 | 0.05000 | 0.27950 | 0.00350 | 0.77750 | 1642.0 | 10.0 | 1589.0 | 18.0 | 1693 | 15 | 1693.0 | 15.0 | 6.1 | Single Age |
| STJ02_22 | 580 | 2.44 | 10.20800 | 0.09200 | 0.44320 | 0.00410 | 0.78328 | 2454.3 | 8.5 | 2364.0 | 18.0 | 2516 | 11 | 2516.0 | 11.0 | 6.0 | Single Age |
| STJ02_23 | 89.7 | 1.59 | 1.51000 | 0.02800 | 0.15280 | 0.00240 | 0.53933 | 934.0 | 11.0 | 916.0 | 13.0 | 956 | 38 | 956.0 | 38.0 | 4.2 | Single Age |
| STJ02_25 | 187 | 1.37 | 3.80700 | 0.04500 | 0.27830 | 0.00350 | 0.51453 | 1594.1 | 9.5 | 1583.0 | 18.0 | 1610 | 26 | 1610.0 | 26.0 | 1.7 | Single Age |
| STJ02_26 | 695 | 2.52 | 1.86300 | 0.01500 | 0.17870 | 0.00200 | 0.54432 | 1068.0 | 5.4 | 1060.0 | 11.0 | 1067 | 16 | 1067.0 | 16.0 | 0.7 | Single Age |
| STJ02_27 | 116.8 | 0.48 | 4.91800 | 0.07700 | 0.32150 | 0.00410 | 0.67080 | 1805.0 | 13.0 | 1797.0 | 20.0 | 1801 | 23 | 1801.0 | 23.0 | 0.2 | Single Age |
| STJ02_28 | 106.9 | 0.59 | 10.25000 | 0.10000 | 0.44470 | 0.00680 | 0.79583 | 2457.0 | 9.2 | 2371.0 | 30.0 | 2511 | 16 | 2511.0 | 16.0 | 5.6 | Single Age |
| STJ02_29 | 357 | 1.03 | 2.63600 | 0.02400 | 0.22340 | 0.00200 | 0.75057 | 1311.4 | 6.8 | 1300.0 | 10.0 | 1315 | 14 | 1315.0 | 14.0 | 1.1 | Single Age |
| STJ02_30 | 63.3 | 1.66 | 3.25300 | 0.06200 | 0.24530 | 0.00410 | 0.63817 | 1471.0 | 15.0 | 1414.0 | 21.0 | 1523 | 34 | 1523.0 | 34.0 | 7.2 | Single Age |
| STJ02_31 | 754 | 0.89 | 4.43000 | 0.04000 | 0.29990 | 0.00350 | 0.81165 | 1717.4 | 7.5 | 1691.0 | 17.0 | 1746 | 13 | 1746.0 | 13.0 | 3.2 | Single Age |
| STJ02_32 | 193.4 | 0.42 | 2.01400 | 0.01700 | 0.18610 | 0.00160 | 0.43105 | 1119.9 | 5.8 | 1100.0 | 8.9 | 1156 | 17 | 1156.0 | 17.0 | 4.8 | Single Age |
| STJ02_33 | 937 | 13.10 | 2.31600 | 0.07600 | 0.20510 | 0.00760 | 0.81420 | 1216.0 | 23.0 | 1202.0 | 41.0 | 1248 | 40 | 1248.0 | 40.0 | 3.7 | Rim |
| STJ02_33 | 189.1 | 1.05 | 3.81100 | 0.04200 | 0.28080 | 0.00300 | 0.59974 | 1594.8 | 8.8 | 1595.0 | 15.0 | 1594 | 18 | 1594.0 | 18.0 | 0.1 | Core |
| STJ02_34 | 397 | 1.11 | 4.42200 | 0.09700 | 0.30320 | 0.00660 | 0.93959 | 1714.0 | 18.0 | 1706.0 | 33.0 | 1726 | 15 | 1726.0 | 15.0 | 1.2 | Single Age |
| STJ02_35 | 195.8 | 1.11 | 4.29800 | 0.05600 | 0.29690 | 0.00290 | 0.68911 | 1694.0 | 10.0 | 1676.0 | 15.0 | 1715 | 17 | 1715.0 | 17.0 | 2.3 | Single Age |
| STJ02_36 | 127.3 | 0.55 | 10.62000 | 0.11000 | 0.45950 | 0.00410 | 0.73484 | 2489.9 | 9.3 | 2437.0 | 18.0 | 2549 | 15 | 2549.0 | 15.0 | 4.4 | Single Age |
| STJ02_37 | 115.9 | 0.72 | 2.13900 | 0.02400 | 0.19670 | 0.00190 | 0.58178 | 1161.0 | 7.6 | 1157.0 | 10.0 | 1158 | 21 | 1158.0 | 21.0 | 0.1 | Single Age |
| STJ02_38 | 125.7 | 0.36 | 1.48200 | 0.01900 | 0.15370 | 0.00170 | 0.45355 | 922.8 | 7.8 | 921.8 | 9.2 | 932 | 29 | 932.0 | 29.0 | 1.1 | Single Age |
| STJ02_39 | 198 | 0.90 | 1.62200 | 0.01400 | 0.16630 | 0.00140 | 0.54946 | 978.5 | 5.6 | 991.5 | 7.8 | 972 | 18 | 972.0 | 18.0 | 2.0 | Single Age |
| STJ02_40 | 300.5 | 2.68 | 1.62400 | 0.01900 | 0.16520 | 0.00140 | 0.56354 | 979.1 | 7.4 | 985.7 | 8.0 | 995 | 24 | 995.0 | 24.0 | 0.9 | Single Age |
| STJ02_41 | 169 | 0.41 | 2.71400 | 0.02700 | 0.22820 | 0.00180 | 0.50387 | 1332.8 | 7.6 | 1324.9 | 9.4 | 1355 | 17 | 1355.0 | 17.0 | 2.2 | Single Age |
| STJ02_42 | 93.3 | 0.88 | 3.64000 | 0.03500 | 0.26630 | 0.00220 | 0.55924 | 1557.7 | 7.7 | 1522.0 | 11.0 | 1621 | 17 | 1621.0 | 17.0 | 6.1 | Single Age |

Table 4 Main Central Thrust hanging wall zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STJ02_43 | 129 | 0.16 | 2.76800 | 0.05700 | 0.22940 | 0.00790 | 0.87016 | 1346.0 | 15.0 | 1331.0 | 41.0 | 1402 | 36 | 1402.0 | 36.0 | 5.1 | Single Age |
| STJ02_44 | 250.4 | 0.57 | 3.01500 | 0.02000 | 0.23870 | 0.00120 | 0.48156 | 1411.3 | 5.0 | 1380.0 | 6.2 | 1461 | 11 | 1461.0 | 11.0 | 5.5 | Single Age |
| STJ02_46 | 44.3 | 0.85 | 4.06000 | 0.07600 | 0.28300 | 0.00390 | 0.53081 | 1649.0 | 15.0 | 1606.0 | 20.0 | 1711 | 31 | 1711.0 | 31.0 | 6.1 | Single Age |
| STJ02_47 | 192.4 | 1.10 | 2.22200 | 0.01900 | 0.20470 | 0.00160 | 0.05281 | 1187.6 | 5.9 | 1200.3 | 8.4 | 1172 | 17 | 1172.0 | 17.0 | 2.4 | Single Age |
| STJ02_48 | 158 | 0.58 | 4.48200 | 0.04200 | 0.31030 | 0.00260 | 0.65604 | 1727.2 | 7.7 | 1742.0 | 13.0 | 1719 | 14 | 1719.0 | 14.0 | 1.3 | Single Age |
| STJ02_49 | 998 | 0.71 | 3.64600 | 0.03200 | 0.26560 | 0.00240 | 0.77699 | 1561.1 | 7.0 | 1518.0 | 12.0 | 1633 | 11 | 1633.0 | 11.0 | 7.0 | Single Age |
| STJ02_50 | 467 | 3.28 | 1.33900 | 0.01500 | 0.14060 | 0.00160 | 0.69086 | 863.1 | 6.3 | 848.1 | 9.0 | 908 | 20 | 848.1 | 9.0 | 1.7 | Single Age |
| STJ02_51 | 310 | 0.81 | 2.11300 | 0.02100 | 0.19490 | 0.00170 | 0.72243 | 1152.6 | 6.8 | 1147.7 | 9.2 | 1175 | 15 | 1175.0 | 15.0 | 2.3 | Single Age |
| STJ02_52 | 263.6 | 1.65 | 1.45300 | 0.01400 | 0.14670 | 0.00140 | 0.40584 | 911.0 | 5.7 | 882.4 | 8.0 | 976 | 22 | 976.0 | 22.0 | 9.6 | Single Age |
| STJ02_53 | 108.8 | 0.85 | 2.18100 | 0.02100 | 0.19770 | 0.00170 | 0.36929 | 1174.7 | 6.9 | 1162.9 | 9.2 | 1197 | 19 | 1197.0 | 19.0 | 2.8 | Single Age |
| STJ02_54 | 760 | 1.57 | 6.97800 | 0.05300 | 0.37400 | 0.00310 | 0.76459 | 2108.2 | 6.7 | 2048.0 | 14.0 | 2166 | 9 | 2165.5 | 8.8 | 5.4 | Single Age |
| STJ02_55 | 809 | 2.33 | 4.47600 | 0.03400 | 0.29440 | 0.00260 | 0.78178 | 1726.3 | 6.2 | 1663.0 | 13.0 | 1811 | 10 | 1811.0 | 10.0 | 8.2 | Single Age |
| STJ02_56 | 144.2 | 2.05 | 5.01100 | 0.05300 | 0.31840 | 0.00330 | 0.68686 | 1823.6 | 9.0 | 1782.0 | 16.0 | 1876 | 14 | 1876.0 | 14.0 | 5.0 | Single Age |
| STJ02_57 | 105.8 | 1.75 | 1.99700 | 0.03300 | 0.18930 | 0.00210 | 0.62554 | 1117.0 | 12.0 | 1117.0 | 11.0 | 1128 | 26 | 1128.0 | 26.0 | 1.0 | Single Age |
| STJ02_58 | 145 | 1.16 | 2.19900 | 0.01900 | 0.20050 | 0.00180 | 0.39141 | 1180.4 | 5.9 | 1177.7 | 9.6 | 1183 | 20 | 1183.0 | 20.0 | 0.4 | Single Age |
| STJ02_59 | 304 | 1.33 | 3.69000 | 0.05200 | 0.27830 | 0.00380 | 0.90605 | 1569.0 | 11.0 | 1582.0 | 19.0 | 1561 | 11 | 1561.0 | 11.0 | 1.3 | Single Age |
| STJ02_60 | 266 | 1.19 | 2.66000 | 0.02600 | 0.22450 | 0.00160 | 0.70654 | 1316.8 | 7.3 | 1305.7 | 8.6 | 1349 | 14 | 1349.0 | 14.0 | 3.2 | Single Age |
| STJ02_61 | 645 | 1.87 | 2.79400 | 0.02600 | 0.23350 | 0.00190 | 0.65860 | 1353.7 | 6.9 | 1352.0 | 10.0 | 1368 | 13 | 1368.0 | 13.0 | 1.2 | Single Age |
| STJ02_62 | 255 | 1.00 | 4.18500 | 0.04600 | 0.28980 | 0.00290 | 0.83321 | 1670.5 | 9.0 | 1640.0 | 14.0 | 1720 | 10 | 1720.0 | 10.0 | 4.7 | Single Age |
| STJ02_63 | 146.6 | 1.78 | 4.98600 | 0.06100 | 0.32490 | 0.00340 | 0.73866 | 1816.0 | 10.0 | 1813.0 | 17.0 | 1826 | 16 | 1826.0 | 16.0 | 0.7 | Single Age |
| STJ02_64 | 64.7 | 0.69 | 4.93500 | 0.04400 | 0.31300 | 0.00310 | 0.52330 | 1808.9 | 7.4 | 1755.0 | 15.0 | 1878 | 18 | 1878.0 | 18.0 | 6.5 | Single Age |
| STJ02_65 | 255 | 1.14 | 4.31300 | 0.03300 | 0.29710 | 0.00220 | 0.70055 | 1695.4 | 6.2 | 1677.0 | 11.0 | 1730 | 11 | 1730.0 | 11.0 | 3.1 | Single Age |
| STJ02_66 | 396 | 1.37 | 2.11800 | 0.01800 | 0.19180 | 0.00170 | 0.69890 | 1155.2 | 5.9 | 1131.2 | 9.1 | 1193 | 14 | 1193.0 | 14.0 | 5.2 | Single Age |
| STJ02_67 | 251 | 1.30 | 2.49500 | 0.02400 | 0.21770 | 0.00200 | 0.66962 | 1270.0 | 6.9 | 1269.0 | 11.0 | 1277 | 15 | 1277.0 | 15.0 | 0.6 | Single Age |
| STJ02_68 | 105.9 | 0.56 | 4.85200 | 0.04200 | 0.31920 | 0.00250 | 0.44683 | 1794.7 | 7.4 | 1785.0 | 12.0 | 1818 | 16 | 1818.0 | 16.0 | 1.8 | Single Age |
| STJ02_69 | 540 | 1.17 | 4.26400 | 0.04300 | 0.29870 | 0.00390 | 0.76113 | 1686.9 | 8.2 | 1685.0 | 19.0 | 1709 | 14 | 1709.0 | 14.0 | 1.4 | Single Age |
| STJ02_70 | 342 | 0.93 | 4.28700 | 0.02900 | 0.29410 | 0.00200 | 0.63877 | 1690.6 | 5.7 | 1663.0 | 10.0 | 1727 | 10 | 1727.0 | 10.0 | 3.7 | Single Age |
| STJ02_71 | 122.6 | 0.81 | 2.15000 | 0.02500 | 0.19450 | 0.00150 | 0.39029 | 1166.6 | 8.5 | 1145.8 | 8.2 | 1203 | 22 | 1203.0 | 22.0 | 4.8 | Single Age |
| STJ02_72 | 119.4 | 0.67 | 6.77400 | 0.05700 | 0.34510 | 0.00310 | 0.44971 | 2083.1 | 7.7 | 1911.0 | 15.0 | 2273 | 16 | 2273.0 | 16.0 | 15.9 | Single Age |
| STJ02_73 | 197 | 0.81 | 10.77900 | 0.09500 | 0.47140 | 0.00560 | 0.78724 | 2503.9 | 8.3 | 2489.0 | 24.0 | 2525 | 11 | 2525.0 | 11.0 | 1.4 | Single Age |
| STJ02_74 | 34.7 | 0.86 | 2.19000 | 0.12000 | 0.19630 | 0.00850 | 0.46731 | 1175.0 | 39.0 | 1155.0 | 46.0 | 1220 | 130 | 1220.0 | 130.0 | 5.3 | Single Age |
| STJ02_75 | 111.2 | 1.58 | 4.50900 | 0.04900 | 0.30120 | 0.00310 | 0.55152 | 1732.1 | 9.0 | 1697.0 | 15.0 | 1780 | 19 | 1780.0 | 19.0 | 4.7 | Single Age |
| STJ02_76 | 538 | 24.70 | 3.82000 | 0.12000 | 0.26940 | 0.00770 | 0.97169 | 1590.0 | 27.0 | 1535.0 | 40.0 | 1658 | 18 | 1658.0 | 18.0 | 7.4 | Single Age |
| STJ02_77 | 190.2 | 0.76 | 3.17000 | 0.02300 | 0.25140 | 0.00210 | 0.57727 | 1449.6 | 5.7 | 1446.0 | 11.0 | 1461 | 14 | 1461.0 | 14.0 | 1.0 | Single Age |
| STJ02_78 | 141 | 0.70 | 2.03500 | 0.02100 | 0.18790 | 0.00160 | 0.55996 | 1126.9 | 7.2 | 1109.7 | 8.8 | 1170 | 18 | 1170.0 | 18.0 | 5.2 | Single Age |
| STJ02_79 | 180 | 0.67 | 3.01900 | 0.03500 | 0.24960 | 0.00370 | 0.65679 | 1414.3 | 8.8 | 1436.0 | 19.0 | 1386 | 19 | 1386.0 | 19.0 | 3.6 | Single Age |
| STJ02_80 | 1110 | 1.38 | 1.51900 | 0.01700 | 0.15500 | 0.00210 | 0.87714 | 937.5 | 6.7 | 929.0 | 12.0 | 972 | 11 | 972.0 | 11.0 | 4.4 | Single Age |
| STJ02_81 | 437 | 0.78 | 4.25800 | 0.03000 | 0.29320 | 0.00250 | 0.78042 | 1685.9 | 6.0 | 1658.0 | 13.0 | 1718 | 11 | 1718.0 | 11.0 | 3.5 | Single Age |
| STJ02_82 | 604 | 3.72 | 1.49700 | 0.01700 | 0.14880 | 0.00170 | 0.75511 | 928.7 | 6.8 | 893.9 | 9.5 | 997 | 15 | 997.0 | 15.0 | 10.3 | Single Age |
| STJ02_83 | 405 | 0.59 | 1.50600 | 0.01300 | 0.15560 | 0.00130 | 0.52310 | 933.2 | 5.1 | 932.3 | 7.5 | 936 | 19 | 936.0 | 19.0 | 0.4 | Single Age |
| STJ02_84 | 1050 | 1.46 | 4.21000 | 0.03000 | 0.28730 | 0.00220 | 0.75760 | 1675.8 | 5.8 | 1628.0 | 11.0 | 1730 | 10 | 1730.0 | 10.0 | 5.9 | Single Age |
| STJ02_85 | 55.2 | 1.39 | 11.60000 | 0.17000 | 0.46750 | 0.00720 | 0.86418 | 2571.0 | 13.0 | 2471.0 | 32.0 | 2662 | 19 | 2662.0 | 19.0 | 7.2 | Single Age |

Table 4 Main Central Thrust hanging wall zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STJ02_86 | 293 | 0.81 | 7.84400 | 0.05600 | 0.39090 | 0.00340 | 0.79476 | 2212.9 | 6.5 | 2127.0 | 16.0 | 2292 | 11 | 2292.0 | 11.0 | 7.2 | Single Age |
| STJ02_87 | 349 | 2.11 | 9.68000 | 0.10000 | 0.43700 | 0.00510 | 0.63035 | 2403.9 | 9.5 | 2342.0 | 23.0 | 2474 | 16 | 2474.0 | 16.0 | 5.3 | Single Age |
| STJ02_88 | 473 | 0.95 | 4.44100 | 0.05200 | 0.30420 | 0.00440 | 0.65910 | 1719.6 | 9.8 | 1712.0 | 22.0 | 1728 | 21 | 1728.0 | 21.0 | 0.9 | Single Age |
| STJ02_89 | 117.4 | 0.45 | 4.48300 | 0.04700 | 0.29740 | 0.00300 | 0.69635 | 1729.4 | 8.7 | 1678.0 | 15.0 | 1797 | 14 | 1797.0 | 14.0 | 6.6 | Single Age |
| STJ02_90 | 144.6 | 0.77 | 10.55300 | 0.09300 | 0.46260 | 0.00400 | 0.72863 | 2484.1 | 8.2 | 2451.0 | 18.0 | 2515 | 11 | 2515.0 | 11.0 | 2.5 | Single Age |
| STJ02_91 | 216.7 | 1.73 | 4.64100 | 0.04200 | 0.31260 | 0.00290 | 0.85695 | 1756.2 | 7.6 | 1753.0 | 14.0 | 1758 | 12 | 1758.0 | 12.0 | 0.3 | Single Age |
| STJ02_92 | 741 | 1.14 | 4.11200 | 0.04600 | 0.28300 | 0.00270 | 0.79916 | 1655.9 | 9.1 | 1606.0 | 13.0 | 1717 | 10 | 1717.0 | 10.0 | 6.5 | Single Age |
| STJ02_93 | 735 | 5.39 | 2.10800 | 0.01600 | 0.19010 | 0.00130 | 0.73250 | 1151.2 | 5.3 | 1121.6 | 7.0 | 1205 | 10 | 1205.0 | 10.0 | 6.9 | Single Age |
| STJ02_94 | 640 | 3.32 | 1.62300 | 0.01700 | 0.16130 | 0.00170 | 0.76402 | 979.7 | 6.2 | 964.1 | 9.5 | 1013 | 13 | 1013.0 | 13.0 | 4.8 | Single Age |
| STJ02_95 | 279 | 0.74 | 2.22800 | 0.01500 | 0.20160 | 0.00160 | 0.54338 | 1189.7 | 4.6 | 1183.9 | 8.6 | 1199 | 15 | 1199.0 | 15.0 | 1.3 | Single Age |
| STJ02_96 | 287 | 1.02 | 1.73100 | 0.02300 | 0.16310 | 0.00150 | 0.64377 | 1019.7 | 8.6 | 974.0 | 8.5 | 1120 | 22 | 1120.0 | 22.0 | 13.0 | Single Age |
| STJ02_97 | 95.9 | 0.69 | 4.41600 | 0.04500 | 0.30640 | 0.00260 | 0.57867 | 1714.8 | 8.3 | 1723.0 | 13.0 | 1710 | 16 | 1710.0 | 16.0 | 0.8 | Single Age |
| STJ02_98 | 422 | 2.92 | 3.72000 | 0.03100 | 0.26730 | 0.00230 | 0.71937 | 1576.4 | 6.4 | 1527.0 | 12.0 | 1636 | 12 | 1636.0 | 12.0 | 6.7 | Single Age |
| STJ02_99 | 469 | 0.92 | 1.55400 | 0.01400 | 0.15870 | 0.00140 | 0.64285 | 951.9 | 5.4 | 949.3 | 7.7 | 961 | 14 | 961.0 | 14.0 | 1.2 | Single Age |
| STJ02_100 | 106.3 | 0.77 | 4.79900 | 0.04600 | 0.31580 | 0.00320 | 0.59277 | 1784.2 | 8.1 | 1769.0 | 16.0 | 1801 | 16 | 1801.0 | 16.0 | 1.8 | Single Age |
| STJ02_101 | 367 | 0.35 | 1.50200 | 0.01400 | 0.15460 | 0.00160 | 0.79117 | 932.3 | 5.8 | 926.7 | 9.0 | 950 | 14 | 950.0 | 14.0 | 2.5 | Single Age |
| STJ02_102 | 596 | 0.66 | 4.10900 | 0.02500 | 0.28240 | 0.00200 | 0.58881 | 1655.8 | 5.0 | 1603.0 | 10.0 | 1729 | 12 | 1729.0 | 12.0 | 7.3 | Single Age |
| STJ02_103 | 420 | 1.75 | 4.29000 | 0.03600 | 0.29410 | 0.00280 | 0.72568 | 1691.9 | 6.7 | 1662.0 | 14.0 | 1725 | 13 | 1725.0 | 13.0 | 3.7 | Single Age |
| STJ02_104 | 201 | 1.11 | 4.35800 | 0.04700 | 0.29990 | 0.00310 | 0.49642 | 1704.0 | 8.9 | 1691.0 | 15.0 | 1725 | 18 | 1725.0 | 18.0 | 2.0 | Single Age |
| STJ02_105 | 425 | 1.35 | 3.88000 | 0.06600 | 0.28080 | 0.00390 | 0.83854 | 1608.0 | 14.0 | 1595.0 | 20.0 | 1601 | 19 | 1601.0 | 19.0 | 0.4 | Single Age |
| STJ02_106 | 533 | 1.45 | 4.90200 | 0.03300 | 0.31270 | 0.00210 | 0.75429 | 1802.3 | 5.7 | 1755.0 | 11.0 | 1864 | 10 | 1864.4 | 9.7 | 5.9 | Single Age |
| STJ02_108 | 112.4 | 1.17 | 4.41000 | 0.05100 | 0.30750 | 0.00370 | 0.72255 | 1713.3 | 9.6 | 1730.0 | 18.0 | 1701 | 17 | 1701.0 | 17.0 | 1.7 | Single Age |
| STJ02_109 | 328 | 0.36 | 1.54400 | 0.01300 | 0.15860 | 0.00110 | 0.52888 | 947.9 | 5.1 | 949.0 | 6.0 | 953 | 16 | 953.0 | 16.0 | 0.4 | Single Age |
| STJ02_110 | 250.5 | 1.20 | 3.98400 | 0.04700 | 0.27410 | 0.00270 | 0.88187 | 1630.2 | 9.3 | 1561.0 | 13.0 | 1726 | 15 | 1726.0 | 15.0 | 9.6 | Single Age |
| STJ02_111 | 312 | 0.93 | 1.47200 | 0.02800 | 0.14960 | 0.00320 | 0.73924 | 918.0 | 11.0 | 898.0 | 18.0 | 978 | 24 | 978.0 | 24.0 | 8.2 | Single Age |
| STJ02_112 | 147.1 | 1.39 | 2.20300 | 0.06900 | 0.19480 | 0.00540 | 0.89565 | 1179.0 | 22.0 | 1147.0 | 30.0 | 1241 | 27 | 1241.0 | 27.0 | 7.6 | Single Age |
| STJ02_113 | 370 | 1.38 | 2.52700 | 0.03100 | 0.21130 | 0.00220 | 0.68388 | 1279.4 | 8.9 | 1235.0 | 12.0 | 1358 | 19 | 1358.0 | 19.0 | 9.1 | Single Age |
| STJ02_114 | 201 | 0.53 | 2.17200 | 0.01800 | 0.19660 | 0.00160 | 0.37763 | 1171.8 | 5.6 | 1157.0 | 8.6 | 1194 | 18 | 1194.0 | 18.0 | 3.1 | Single Age |
| STJ02_115 | 145 | 1.14 | 5.34700 | 0.08200 | 0.33430 | 0.00480 | 0.76043 | 1876.0 | 13.0 | 1859.0 | 23.0 | 1879 | 22 | 1879.0 | 22.0 | 1.1 | Single Age |
| STJ02_116 | 412.9 | 0.44 | 1.54500 | 0.01700 | 0.15750 | 0.00150 | 0.79561 | 949.4 | 6.6 | 942.9 | 8.6 | 968 | 15 | 968.0 | 15.0 | 2.6 | Single Age |
| STJ02_117 | 130.9 | 1.01 | 4.34600 | 0.03900 | 0.29650 | 0.00250 | 0.56403 | 1701.7 | 7.4 | 1674.0 | 12.0 | 1726 | 13 | 1726.0 | 13.0 | 3.0 | Single Age |
| STJ02_118 | 69.6 | 1.67 | 12.68000 | 0.28000 | 0.51600 | 0.01100 | 0.83864 | 2654.0 | 21.0 | 2681.0 | 48.0 | 2627 | 19 | 2627.0 | 19.0 | 2.1 | Single Age |
| STJ02_119 | 117 | 2.35 | 5.41000 | 0.06200 | 0.34170 | 0.00410 | 0.70388 | 1887.1 | 9.5 | 1895.0 | 20.0 | 1867 | 17 | 1867.0 | 17.0 | 1.5 | Single Age |
| STJ02_120 | 170 | 1.23 | 4.52800 | 0.05800 | 0.31160 | 0.00460 | 0.71532 | 1736.0 | 11.0 | 1748.0 | 23.0 | 1699 | 21 | 1699.0 | 21.0 | 2.9 | Single Age |
| MGM01_1 | 340 | 2.30 | 1.28600 | 0.01600 | 0.13660 | 0.00170 | 0.76779 | 839.1 | 7.2 | 825.0 | 9.9 | 890 | 18 | 825.0 | 9.9 | 1.7 | Single Age |
| MGM01_2 | 378 | 1.32 | 1.29200 | 0.01300 | 0.13760 | 0.00140 | 0.60603 | 841.6 | 5.9 | 830.9 | 8.1 | 878 | 17 | 830.9 | 8.1 | 1.3 | Single Age |
| MGM01_3 | 318 | 1.35 | 5.01800 | 0.03500 | 0.31970 | 0.00240 | 0.71764 | 1822.8 | 5.8 | 1788.0 | 12.0 | 1859 | 10 | 1859.1 | 9.7 | 3.8 | Single Age |
| MGM01_4 | 114.8 | 1.44 | 1.30600 | 0.01400 | 0.13930 | 0.00120 | 0.21200 | 847.9 | 6.1 | 840.5 | 6.6 | 873 | 30 | 840.5 | 6.6 | 0.9 | Single Age |
| MGM01_5 | 35.28 | 0.75 | 1.20200 | 0.02900 | 0.12890 | 0.00250 | 0.35881 | 800.0 | 14.0 | 781.0 | 15.0 | 846 | 54 | 781.0 | 15.0 | 2.4 | Single Age |
| MGM01_6 | 346 | 1.96 | 1.24700 | 0.01300 | 0.13450 | 0.00120 | 0.56657 | 822.5 | 5.7 | 813.2 | 6.9 | 845 | 18 | 813.2 | 6.9 | 1.1 | Single Age |
| MGM01_7 | 251.6 | 1.20 | 1.21400 | 0.01000 | 0.12950 | 0.00100 | 0.38994 | 807.3 | 4.5 | 784.7 | 5.7 | 864 | 18 | 784.7 | 5.7 | 2.8 | Single Age |
| MGM01_9 | 229 | 1.47 | 1.26200 | 0.01200 | 0.13260 | 0.00150 | 0.77317 | 828.5 | 5.6 | 804.1 | 8.0 | 888 | 15 | 804.1 | 8.0 | 2.9 | Single Age |

Table 4 Main Central Thrust hanging wall zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MGM01_10 | 364 | 1.76 | 1.36000 | 0.02000 | 0.14310 | 0.00240 | 0.64170 | 871.4 | 8.7 | 862.0 | 13.0 | 888 | 28 | 888.0 | 28.0 | 2.9 | Single Age |
| MGM01_11 | 424 | 1.77 | 1.29730 | 0.00920 | 0.13749 | 0.00082 | 0.42945 | 844.9 | 4.2 | 830.4 | 4.6 | 880 | 15 | 830.4 | 4.6 | 1.7 | Single Age |
| MGM01_12 | 240 | 1.16 | 1.26400 | 0.01100 | 0.13570 | 0.00120 | 0.44344 | 829.5 | 4.9 | 820.2 | 7.1 | 845 | 20 | 820.2 | 7.1 | 1.1 | Single Age |
| MGM01_13 | 345 | 2.35 | 1.20100 | 0.01000 | 0.12810 | 0.00120 | 0.60324 | 801.0 | 4.7 | 776.9 | 6.8 | 855 | 17 | 776.9 | 6.8 | 3.0 | Single Age |
| MGM01_14 | 177.5 | 0.68 | 1.21700 | 0.02400 | 0.13080 | 0.00190 | 0.60166 | 810.0 | 10.0 | 792.0 | 11.0 | 838 | 27 | 792.0 | 11.0 | 2.2 | Single Age |
| MGM01_15 | 316.9 | 3.98 | 1.32800 | 0.01900 | 0.14070 | 0.00190 | 0.56948 | 857.7 | 8.5 | 848.0 | 11.0 | 886 | 23 | 848.0 | 11.0 | 1.1 | Single Age |
| MGM01_16 | 98.6 | 1.57 | 1.26100 | 0.01500 | 0.13620 | 0.00190 | 0.38308 | 828.1 | 6.8 | 824.0 | 11.0 | 852 | 31 | 824.0 | 11.0 | 0.5 | Single Age |
| MGM01_17 | 154.6 | 1.86 | 1.27000 | 0.01400 | 0.13400 | 0.00130 | 0.41731 | 832.1 | 6.3 | 810.3 | 7.4 | 880 | 22 | 810.3 | 7.4 | 2.6 | Single Age |
| MGM01_18 | 70.1 | 1.46 | 1.10000 | 0.01500 | 0.12090 | 0.00140 | 0.34869 | 752.9 | 7.3 | 735.7 | 8.0 | 790 | 29 | 735.7 | 8.0 | 2.3 | Single Age |
| MGM01_19 | 183.6 | 2.75 | 1.31700 | 0.01900 | 0.13990 | 0.00200 | 0.59568 | 853.0 | 8.4 | 844.0 | 11.0 | 878 | 28 | 844.0 | 11.0 | 1.1 | Single Age |
| MGM01_20 | 401 | 1.02 | 1.22700 | 0.01100 | 0.13168 | 0.00097 | 0.53208 | 812.9 | 4.9 | 797.4 | 5.5 | 849 | 15 | 797.4 | 5.5 | 1.9 | Single Age |
| MGM01_21 | 717 | 1.74 | 1.19300 | 0.02700 | 0.12590 | 0.00310 | 0.50598 | 799.0 | 13.0 | 764.0 | 18.0 | 877 | 40 | 764.0 | 18.0 | 4.4 | Single Age |
| MGM01_22 | 77.4 | 0.87 | 1.08400 | 0.01900 | 0.12030 | 0.00160 | 0.28784 | 745.3 | 9.1 | 732.2 | 9.4 | 805 | 38 | 732.2 | 9.4 | 1.8 | Single Age |
| MGM01_23 | 99.2 | 0.46 | 4.82100 | 0.04400 | 0.30850 | 0.00300 | 0.54992 | 1788.1 | 7.8 | 1733.0 | 15.0 | 1841 | 19 | 1841.0 | 19.0 | 5.9 | Single Age |
| MGM01_24 | 144 | 1.89 | 1.30700 | 0.01400 | 0.13892 | 0.00098 | 0.22680 | 849.1 | 6.2 | 838.5 | 5.6 | 860 | 24 | 838.5 | 5.6 | 1.2 | Single Age |
| MGM01_25 | 338 | 6.82 | 4.78100 | 0.06600 | 0.30360 | 0.00470 | 0.77036 | 1783.0 | 12.0 | 1708.0 | 23.0 | 1852 | 19 | 1852.0 | 19.0 | 7.8 | Single Age |
| MGM01_26 | 527 | 0.64 | 0.96900 | 0.01100 | 0.10610 | 0.00140 | 0.70520 | 687.5 | 5.8 | 650.0 | 8.0 | 809 | 20 | 650.0 | 8.0 | 5.5 | Single Age |
| MGM01_27 | 265.8 | 1.50 | 4.83400 | 0.05400 | 0.30190 | 0.00370 | 0.73015 | 1789.9 | 9.4 | 1700.0 | 18.0 | 1880 | 14 | 1880.0 | 14.0 | 9.6 | Single Age |
| MGM01_28 | 521 | 1.59 | 1.21410 | 0.00860 | 0.13061 | 0.00089 | 0.51808 | 807.6 | 4.0 | 791.3 | 5.1 | 847 | 12 | 791.3 | 5.1 | 2.0 | Single Age |
| MGM01_29 | 551 | 3.28 | 1.27700 | 0.01100 | 0.13454 | 0.00093 | 0.55530 | 835.8 | 4.9 | 813.7 | 5.3 | 884 | 14 | 813.7 | 5.3 | 2.6 | Single Age |
| MGM01_30 | 101.4 | 1.11 | 1.29500 | 0.01400 | 0.13690 | 0.00130 | 0.33306 | 843.9 | 6.2 | 827.1 | 7.4 | 868 | 27 | 827.1 | 7.4 | 2.0 | Single Age |
| MGM01_31 | 191.8 | 1.63 | 1.34300 | 0.01300 | 0.14150 | 0.00140 | 0.33423 | 864.2 | 5.7 | 852.9 | 7.8 | 869 | 22 | 869.0 | 22.0 | 1.9 | Single Age |
| MGM01_32 | 1521 | 2.65 | 0.88000 | 0.01300 | 0.09050 | 0.00110 | 0.78456 | 640.8 | 6.8 | 558.5 | 6.4 | 935 | 19 | DISC | DISC | 12.8 | Single Age |
| MGM01_33 | 768 | 0.50 | 1.13200 | 0.01200 | 0.11860 | 0.00140 | 0.75283 | 768.4 | 5.7 | 722.5 | 7.9 | 894 | 18 | 722.5 | 7.9 | 6.0 | Single Age |
| MGM01_34 | 184 | 1.14 | 1.18500 | 0.01500 | 0.12740 | 0.00120 | 0.58799 | 793.8 | 7.0 | 772.9 | 6.8 | 835 | 20 | 772.9 | 6.8 | 2.6 | Single Age |
| MGM01_35 | 133.8 | 1.29 | 1.31600 | 0.01400 | 0.13830 | 0.00130 | 0.26291 | 853.1 | 6.0 | 834.9 | 7.3 | 887 | 25 | 834.9 | 7.3 | 2.1 | Single Age |
| MGM01_36 | 566 | 1.29 | 1.27120 | 0.00800 | 0.13603 | 0.00081 | 0.49369 | 832.8 | 3.6 | 822.1 | 4.6 | 858 | 13 | 822.1 | 4.6 | 1.3 | Single Age |
| MGM01_37 | 510 | 1.91 | 1.20700 | 0.01100 | 0.12622 | 0.00097 | 0.74371 | 803.5 | 5.1 | 766.2 | 5.6 | 901 | 13 | 766.2 | 5.6 | 4.6 | Single Age |
| MGM01_38 | 417 | 3.25 | 1.09000 | 0.01400 | 0.11710 | 0.00160 | 0.57897 | 748.2 | 6.6 | 715.2 | 9.5 | 840 | 24 | 715.2 | 9.5 | 4.4 | Single Age |
| MGM01_39 | 314 | 1.76 | 1.31900 | 0.01200 | 0.13940 | 0.00130 | 0.56416 | 853.9 | 5.4 | 841.3 | 7.1 | 874 | 17 | 841.3 | 7.1 | 1.5 | Single Age |
| MGM01_40 | 650.3 | 4.22 | 1.32100 | 0.01600 | 0.13910 | 0.00160 | 0.75674 | 854.6 | 7.0 | 839.3 | 8.9 | 880 | 18 | 839.3 | 8.9 | 1.8 | Single Age |
| MGM01_41 | 136 | 1.57 | 1.30000 | 0.02000 | 0.13740 | 0.00180 | 0.53144 | 844.8 | 8.6 | 830.0 | 10.0 | 864 | 26 | 830.0 | 10.0 | 1.8 | Single Age |
| MGM01_42 | 477 | 1.50 | 1.22500 | 0.01200 | 0.12800 | 0.00140 | 0.67123 | 812.0 | 5.6 | 776.3 | 8.0 | 895 | 17 | 776.3 | 8.0 | 4.4 | Single Age |
| MGM01_43 | 259 | 1.41 | 1.29700 | 0.01700 | 0.13750 | 0.00190 | 0.56493 | 844.9 | 7.3 | 830.0 | 10.0 | 867 | 24 | 830.0 | 10.0 | 1.8 | Single Age |
| MGM01_44 | 489 | 1.32 | 1.10600 | 0.01400 | 0.11660 | 0.00110 | 0.69811 | 757.3 | 6.3 | 711.1 | 6.2 | 882 | 18 | 711.1 | 6.2 | 6.1 | Single Age |
| MGM01_45 | 324 | 2.45 | 1.02000 | 0.01100 | 0.10780 | 0.00130 | 0.59776 | 713.8 | 5.6 | 661.0 | 7.8 | 872 | 22 | 661.0 | 7.8 | 7.4 | Single Age |
| MGM01_46 | 426.1 | 1.45 | 1.09000 | 0.02800 | 0.11330 | 0.00310 | 0.67786 | 750.0 | 14.0 | 692.0 | 18.0 | 888 | 41 | 692.0 | 18.0 | 7.7 | Single Age |
| MGM01_47 | 171 | 0.61 | 4.94100 | 0.03500 | 0.31330 | 0.00210 | 0.62012 | 1808.9 | 6.0 | 1757.0 | 10.0 | 1867 | 12 | 1867.0 | 12.0 | 5.9 | Single Age |
| MGM01_48 | 87.6 | 1.06 | 1.20000 | 0.01700 | 0.13260 | 0.00140 | 0.28832 | 800.0 | 7.8 | 802.5 | 7.8 | 792 | 30 | 802.5 | 7.8 | 0.3 | Single Age |
| MGM01_49 | 416 | 3.36 | 1.35600 | 0.02000 | 0.14200 | 0.00270 | 0.68012 | 869.7 | 8.7 | 856.0 | 15.0 | 882 | 28 | 882.0 | 28.0 | 2.9 | Single Age |
| MGM01_50 | 87.6 | 0.82 | 1.21100 | 0.01500 | 0.13150 | 0.00120 | 0.46566 | 805.3 | 6.8 | 796.3 | 6.7 | 825 | 24 | 796.3 | 6.7 | 1.1 | Single Age |
| MGM01_51 | 463 | 3.20 | 4.88700 | 0.06300 | 0.30020 | 0.00450 | 0.84533 | 1799.0 | 11.0 | 1692.0 | 22.0 | 1923 | 15 | 1923.0 | 15.0 | 12.0 | Single Age |

Table 4 Main Central Thrust hanging wall zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MGM01_52 | 598 | 2.92 | 1.27300 | 0.01500 | 0.13540 | 0.00120 | 0.60989 | 833.4 | 6.6 | 818.8 | 7.0 | 869 | 18 | 818.8 | 7.0 | 1.8 | Single Age |
| MGM01_53 | 574 | 5.65 | 1.35550 | 0.00860 | 0.14390 | 0.00110 | 0.62815 | 869.8 | 3.7 | 866.4 | 6.0 | 876 | 13 | 876.0 | 13.0 | 1.1 | Single Age |
| MGM01_54 | 390 | 3.03 | 1.30700 | 0.01600 | 0.13880 | 0.00170 | 0.80497 | 848.6 | 7.3 | 838.0 | 9.9 | 877 | 22 | 838.0 | 9.9 | 1.2 | Single Age |
| MGM01_55 | 227.4 | 3.25 | 1.33600 | 0.02100 | 0.14090 | 0.00230 | 0.66966 | 860.8 | 8.9 | 850.0 | 13.0 | 869 | 26 | 869.0 | 26.0 | 2.2 | Single Age |
| MGM01_56 | 431 | 1.89 | 1.32200 | 0.02100 | 0.14070 | 0.00240 | 0.77646 | 854.8 | 9.0 | 848.0 | 13.0 | 860 | 26 | 848.0 | 13.0 | 0.8 | Single Age |
| MGM01_57 | 483 | 2.19 | 1.24700 | 0.01300 | 0.13490 | 0.00190 | 0.64989 | 822.4 | 5.8 | 816.0 | 11.0 | 843 | 21 | 816.0 | 11.0 | 0.8 | Single Age |
| MGM01_58 | 405 | 1.40 | 1.17300 | 0.01100 | 0.12533 | 0.00092 | 0.61713 | 787.6 | 5.0 | 761.9 | 5.4 | 858 | 14 | 761.9 | 5.4 | 3.3 | Single Age |
| MGM01_59 | 334 | 1.98 | 1.38200 | 0.01500 | 0.14580 | 0.00140 | 0.71833 | 881.0 | 6.4 | 877.2 | 8.1 | 893 | 17 | 893.0 | 17.0 | 1.8 | Single Age |
| MGM01_60 | 258 | 3.12 | 1.21600 | 0.02200 | 0.13060 | 0.00200 | 0.73696 | 807.5 | 9.9 | 791.0 | 12.0 | 875 | 25 | 791.0 | 12.0 | 2.0 | Single Age |
| MGM01_61 | 212 | 1.71 | 1.30200 | 0.01200 | 0.13810 | 0.00110 | 0.30006 | 846.3 | 5.5 | 833.6 | 6.5 | 875 | 20 | 833.6 | 6.5 | 1.5 | Single Age |
| MGM01_62 | 648 | 11.09 | 1.25900 | 0.01500 | 0.13380 | 0.00190 | 0.81172 | 827.2 | 6.9 | 810.0 | 11.0 | 877 | 25 | 810.0 | 11.0 | 2.1 | Single Age |
| MGM01_63 | 782 | 1.96 | 1.28300 | 0.01400 | 0.13780 | 0.00180 | 0.13932 | 837.7 | 6.2 | 832.0 | 10.0 | 856 | 22 | 832.0 | 10.0 | 0.7 | Single Age |
| MGM01_64 | 328 | 1.36 | 4.64400 | 0.07500 | 0.30000 | 0.00610 | 0.82074 | 1756.0 | 13.0 | 1694.0 | 29.0 | 1825 | 21 | 1825.0 | 21.0 | 7.2 | Single Age |
| MGM01_65 | 315.3 | 7.23 | 1.38400 | 0.01600 | 0.14640 | 0.00170 | 0.61304 | 881.7 | 7.0 | 880.8 | 9.5 | 879 | 21 | 879.0 | 21.0 | 0.2 | Single Age |
| MGM01_66 | 37.6 | 1.92 | 1.25500 | 0.02000 | 0.13400 | 0.00180 | 0.35430 | 826.2 | 9.1 | 811.0 | 10.0 | 868 | 36 | 811.0 | 10.0 | 1.8 | Single Age |
| MGM01_67 | 561 | 1.31 | 1.08800 | 0.01600 | 0.11590 | 0.00190 | 0.50459 | 747.2 | 7.8 | 707.0 | 11.0 | 882 | 38 | 707.0 | 11.0 | 5.4 | Single Age |
| MGM01_68 | 75.4 | 1.63 | 1.36400 | 0.02600 | 0.14390 | 0.00310 | 0.48714 | 876.0 | 11.0 | 866.0 | 17.0 | 879 | 43 | 879.0 | 43.0 | 1.5 | Single Age |
| MGM01_69 | 824 | 0.95 | 0.90100 | 0.01100 | 0.09510 | 0.00130 | 0.85156 | 651.9 | 5.8 | 585.3 | 7.9 | 906 | 15 | DISC | DISC | 10.2 | Single Age |
| MGM01_70 | 115.6 | 3.58 | 1.28900 | 0.01400 | 0.13770 | 0.00140 | 0.20730 | 841.3 | 6.0 | 831.3 | 7.7 | 879 | 27 | 831.3 | 7.7 | 1.2 | Single Age |
| MGM01_71 | 358.8 | 3.06 | 1.38600 | 0.01300 | 0.14730 | 0.00130 | 0.68386 | 883.0 | 5.3 | 885.5 | 7.4 | 873 | 17 | 873.0 | 17.0 | 1.4 | Single Age |
| MGM01_72 | 167 | 1.44 | 5.48500 | 0.07200 | 0.34410 | 0.00430 | 0.73907 | 1897.0 | 11.0 | 1906.0 | 21.0 | 1886 | 15 | 1886.0 | 15.0 | 1.1 | Single Age |
| MGM01_73 | 388 | 3.86 | 1.29700 | 0.01200 | 0.13880 | 0.00150 | 0.64172 | 844.0 | 5.5 | 838.0 | 8.7 | 865 | 19 | 838.0 | 8.7 | 0.7 | Single Age |
| MGM01_74 | 740 | 3.44 | 1.29000 | 0.01700 | 0.13610 | 0.00140 | 0.65363 | 840.9 | 7.4 | 822.6 | 8.0 | 886 | 24 | 822.6 | 8.0 | 2.2 | Single Age |
| MGM01_75 | 484 | 2.30 | 1.31000 | 0.01200 | 0.13760 | 0.00130 | 0.52092 | 850.2 | 5.1 | 831.0 | 7.2 | 904 | 19 | 831.0 | 7.2 | 2.3 | Single Age |
| MGM01_76 | 326 | 1.94 | 1.31300 | 0.02300 | 0.13930 | 0.00230 | 0.72033 | 850.7 | 9.9 | 841.0 | 13.0 | 875 | 27 | 841.0 | 13.0 | 1.1 | Single Age |
| MGM01_77 | 251 | 1.34 | 1.32000 | 0.01300 | 0.14330 | 0.00190 | 0.43883 | 854.4 | 5.6 | 863.0 | 11.0 | 830 | 26 | 830.0 | 11.0 | 1.0 | Single Age |
| MGM01_78 | 118.9 | 0.84 | 1.09100 | 0.01200 | 0.12320 | 0.00130 | 0.50741 | 748.6 | 6.0 | 749.0 | 7.7 | 757 | 23 | 749.0 | 7.7 | 0.1 | Single Age |
| MGM01_79 | 448 | 3.19 | 1.22700 | 0.01300 | 0.13430 | 0.00150 | 0.53467 | 812.8 | 6.0 | 812.4 | 8.6 | 833 | 22 | 812.4 | 8.6 | 0.0 | Single Age |
| MGM01_80 | 311.2 | 2.11 | 1.31700 | 0.01500 | 0.14070 | 0.00140 | 0.62768 | 853.4 | 6.5 | 848.3 | 8.0 | 870 | 17 | 848.3 | 8.0 | 0.6 | Single Age |
| MGM01_81 | 371 | 2.01 | 1.32500 | 0.01200 | 0.14140 | 0.00120 | 0.61655 | 857.2 | 5.3 | 852.7 | 7.0 | 893 | 16 | 893.0 | 16.0 | 4.5 | Single Age |
| MGM01_82 | 121.7 | 0.79 | 5.15100 | 0.04000 | 0.32970 | 0.00260 | 0.49481 | 1844.9 | 6.6 | 1837.0 | 12.0 | 1865 | 14 | 1865.0 | 14.0 | 1.5 | Single Age |
| MGM01_83 | 208.8 | 2.27 | 1.29360 | 0.00870 | 0.13787 | 0.00093 | 0.31109 | 842.8 | 3.8 | 832.6 | 5.3 | 888 | 18 | 832.6 | 5.3 | 1.2 | Single Age |
| MGM01_84 | 160 | 2.25 | 1.29000 | 0.01800 | 0.13850 | 0.00190 | 0.34047 | 840.7 | 8.0 | 836.0 | 11.0 | 881 | 31 | 836.0 | 11.0 | 0.6 | Single Age |
| MGM01_85 | 358.9 | 2.50 | 1.19600 | 0.01600 | 0.12840 | 0.00180 | 0.71162 | 798.7 | 7.3 | 779.0 | 10.0 | 866 | 23 | 779.0 | 10.0 | 2.5 | Single Age |
| MGM01_86 | 319 | 3.16 | 1.36100 | 0.01600 | 0.14520 | 0.00170 | 0.64275 | 871.8 | 6.8 | 873.6 | 9.4 | 871 | 18 | 871.0 | 18.0 | 0.3 | Single Age |
| MGM01_87 | 276 | 1.51 | 1.22000 | 0.01200 | 0.13346 | 0.00084 | 0.37188 | 809.7 | 5.4 | 807.5 | 4.8 | 837 | 19 | 807.5 | 4.8 | 0.3 | Single Age |
| MGM01_88 | 848 | 5.14 | 1.09000 | 0.01000 | 0.11460 | 0.00110 | 0.80896 | 748.4 | 4.9 | 699.2 | 6.2 | 908 | 13 | 699.2 | 6.2 | 6.6 | Single Age |
| MGM01_89 | 641 | 3.63 | 1.26500 | 0.01900 | 0.13680 | 0.00170 | 0.53136 | 829.7 | 8.7 | 826.3 | 9.7 | 849 | 24 | 826.3 | 9.7 | 0.4 | Single Age |
| MGM01_90 | 416 | 3.31 | 1.25300 | 0.01600 | 0.13560 | 0.00120 | 0.60470 | 824.6 | 7.0 | 819.9 | 6.9 | 866 | 22 | 819.9 | 6.9 | 0.6 | Single Age |
| MGM01_91 | 70.7 | 1.20 | 1.21400 | 0.03100 | 0.13020 | 0.00320 | 0.43259 | 806.0 | 14.0 | 789.0 | 19.0 | 882 | 70 | 789.0 | 19.0 | 2.1 | Single Age |
| MGM01_92 | 361 | 2.91 | 1.34700 | 0.01100 | 0.14520 | 0.00140 | 0.58976 | 866.2 | 4.6 | 873.9 | 7.7 | 879 | 17 | 879.0 | 17.0 | 0.6 | Single Age |
| MGM01_93 | 273 | 1.21 | 1.39700 | 0.05200 | 0.14860 | 0.00510 | 0.92306 | 887.0 | 22.0 | 893.0 | 29.0 | 903 | 27 | 903.0 | 27.0 | 1.1 | Single Age |

Table 4 Main Central Thrust hanging wall zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MGM01_94 | 422.8 | 0.33 | 1.15500 | 0.02100 | 0.12660 | 0.00240 | 0.79097 | 779.0 | 10.0 | 769.0 | 14.0 | 824 | 27 | 769.0 | 14.0 | 1.3 | Single Age |
| MGM01_95 | 581 | 1.20 | 1.08100 | 0.01300 | 0.11530 | 0.00110 | 0.36160 | 744.0 | 6.4 | 703.5 | 6.4 | 886 | 26 | 703.5 | 6.4 | 5.4 | Single Age |
| MGM01_96 | 594 | 1.07 | 1.26300 | 0.01600 | 0.13420 | 0.00140 | 0.53605 | 829.1 | 7.4 | 812.0 | 7.7 | 902 | 20 | 812.0 | 7.7 | 2.1 | Single Age |
| MGM01_97 | 564 | 1.89 | 1.20700 | 0.01400 | 0.12790 | 0.00140 | 0.58889 | 803.8 | 6.5 | 775.7 | 7.9 | 884 | 24 | 775.7 | 7.9 | 3.5 | Single Age |
| MGM01_99 | 626 | 2.96 | 1.18700 | 0.01500 | 0.12620 | 0.00220 | 0.76448 | 794.2 | 6.8 | 766.0 | 12.0 | 885 | 22 | 766.0 | 12.0 | 3.6 | Single Age |
| MGM01_100 | 312 | 2.59 | 1.24660 | 0.00940 | 0.13550 | 0.00140 | 0.28685 | 821.7 | 4.3 | 819.3 | 8.2 | 847 | 17 | 819.3 | 8.2 | 0.3 | Single Age |
| MGM01_101 | 605 | 2.70 | 1.23500 | 0.01500 | 0.13150 | 0.00110 | 0.57280 | 816.1 | 6.9 | 796.4 | 6.4 | 883 | 20 | 796.4 | 6.4 | 2.4 | Single Age |
| MGM01_102 | 680 | 0.84 | 1.33000 | 0.01400 | 0.14190 | 0.00120 | 0.61052 | 858.8 | 6.0 | 855.5 | 6.8 | 880 | 17 | 880.0 | 17.0 | 2.8 | Single Age |
| MGM01_103 | 642 | 7.23 | 1.19910 | 0.00910 | 0.12825 | 0.00099 | 0.49647 | 800.0 | 4.2 | 777.8 | 5.6 | 876 | 14 | 777.8 | 5.6 | 2.8 | Single Age |
| MGM01_104 | 392.8 | 1.91 | 1.27600 | 0.01200 | 0.13750 | 0.00120 | 0.66189 | 834.9 | 5.3 | 830.2 | 7.1 | 871 | 16 | 830.2 | 7.1 | 0.6 | Single Age |
| MGM01_105 | 237 | 0.94 | 0.95800 | 0.02100 | 0.10250 | 0.00160 | 0.56386 | 682.0 | 11.0 | 628.8 | 9.4 | 848 | 40 | 628.8 | 9.4 | 7.8 | Single Age |
| MGM01_106 | 120.8 | 1.18 | 1.22600 | 0.01700 | 0.13400 | 0.00150 | 0.54253 | 812.0 | 7.9 | 810.7 | 8.3 | 819 | 25 | 810.7 | 8.3 | 0.2 | Single Age |
| MGM01_107 | 135.5 | 1.06 | 1.26700 | 0.01900 | 0.13650 | 0.00170 | 0.17273 | 830.7 | 8.5 | 824.9 | 9.6 | 848 | 36 | 824.9 | 9.6 | 0.7 | Single Age |
| MGM01_108 | 1005 | 4.04 | 0.89900 | 0.01300 | 0.09450 | 0.00130 | 0.94896 | 650.7 | 6.8 | 582.3 | 7.8 | 895 | 10 | DISC | DISC | 10.5 | Single Age |
| MGM01_109 | 255.1 | 2.02 | 1.29800 | 0.01400 | 0.13880 | 0.00190 | 0.50190 | 844.5 | 6.4 | 838.0 | 11.0 | 877 | 24 | 838.0 | 11.0 | 0.8 | Single Age |
| MGM01_110 | 862 | 2.06 | 1.16300 | 0.01700 | 0.12310 | 0.00180 | 0.86208 | 783.1 | 7.8 | 750.0 | 11.0 | 872 | 17 | 750.0 | 11.0 | 4.2 | Single Age |
| MGM01_111 | 580 | 1.44 | 1.24200 | 0.01500 | 0.13260 | 0.00170 | 0.74183 | 819.7 | 6.8 | 802.7 | 9.9 | 861 | 20 | 802.7 | 9.9 | 2.1 | Single Age |
| MGM01_112 | 369 | 3.41 | 1.35400 | 0.01200 | 0.14410 | 0.00120 | 0.58104 | 868.9 | 5.0 | 867.8 | 6.6 | 877 | 15 | 877.0 | 15.0 | 1.0 | Single Age |
| MGM01_113 | 201.9 | 1.40 | 1.21900 | 0.01200 | 0.13370 | 0.00100 | 0.43781 | 809.8 | 5.6 | 809.0 | 5.8 | 821 | 19 | 809.0 | 5.8 | 0.1 | Single Age |
| MGM01_114 | 130.1 | 0.99 | 4.84200 | 0.03700 | 0.31100 | 0.00300 | 0.63315 | 1791.9 | 6.4 | 1745.0 | 15.0 | 1846 | 13 | 1846.0 | 13.0 | 5.5 | Single Age |
| MGM01_115 | 71.8 | 1.44 | 1.30700 | 0.01700 | 0.13810 | 0.00160 | 0.44031 | 851.1 | 7.8 | 833.5 | 9.0 | 897 | 27 | 833.5 | 9.0 | 2.1 | Single Age |
| MGM01_116 | 237 | 1.53 | 1.15700 | 0.01200 | 0.12540 | 0.00130 | 0.47923 | 780.3 | 5.9 | 761.3 | 7.4 | 847 | 20 | 761.3 | 7.4 | 2.4 | Single Age |
| MGM01_117 | 294 | 1.09 | 1.35800 | 0.02000 | 0.14610 | 0.00220 | 0.78698 | 870.5 | 8.7 | 879.0 | 12.0 | 852 | 20 | 852.0 | 20.0 | 3.2 | Single Age |
| MGM01_118 | 245 | 1.32 | 1.24900 | 0.01500 | 0.13440 | 0.00140 | 0.61249 | 822.8 | 6.6 | 813.1 | 7.7 | 840 | 18 | 813.1 | 7.7 | 1.2 | Single Age |
| MGM01_119 | 661 | 1.77 | 1.07200 | 0.01200 | 0.11380 | 0.00130 | 0.80680 | 739.2 | 5.7 | 694.6 | 7.7 | 882 | 16 | 694.6 | 7.7 | 6.0 | Single Age |
| MGM01_120 | 724 | 0.91 | 0.80000 | 0.01500 | 0.08500 | 0.00170 | 0.73010 | 596.2 | 8.4 | 527.0 | 10.0 | 862 | 18 | DISC | DISC | 11.6 | Single Age |
| MGA01_1 | 132.2 | 0.72 | 1.15300 | 0.03000 | 0.12400 | 0.00290 | 0.26959 | 780.0 | 14.0 | 753.0 | 17.0 | 847 | 48 | 753.0 | 17.0 | 3.5 | Single Age |
| MGA01_2 | 142.5 | 1.08 | 1.23900 | 0.02600 | 0.13310 | 0.00220 | 0.52761 | 818.0 | 12.0 | 806.0 | 13.0 | 853 | 34 | 806.0 | 13.0 | 1.5 | Single Age |
| MGA01_3 | 171.9 | 0.69 | 1.20700 | 0.01300 | 0.13210 | 0.00140 | 0.62068 | 804.4 | 5.7 | 799.9 | 7.8 | 834 | 24 | 799.9 | 7.8 | 0.6 | Single Age |
| MGA01_4 | 247 | 0.53 | 1.18200 | 0.02000 | 0.12840 | 0.00200 | 0.39522 | 791.8 | 9.5 | 778.0 | 11.0 | 822 | 24 | 778.0 | 11.0 | 1.7 | Single Age |
| MGA01_5 | 988 | 8.70 | 1.44700 | 0.08100 | 0.13920 | 0.00990 | 0.78134 | 907.0 | 33.0 | 840.0 | 56.0 | 1046 | 57 | 840.0 | 56.0 | 7.4 | Rim |
| MGA01_5 | 780 | 0.77 | 2.58000 | 0.13000 | 0.20000 | 0.01100 | 0.87723 | 1290.0 | 38.0 | 1172.0 | 60.0 | 1508 | 66 | 1508.0 | 66.0 | 22.3 | Core |
| MGA01_6 | 143 | 1.19 | 1.18200 | 0.04100 | 0.12690 | 0.00580 | 0.54319 | 791.0 | 19.0 | 770.0 | 33.0 | 892 | 86 | 770.0 | 33.0 | 2.7 | Single Age |
| MGA01_7 | 750 | 1.31 | 0.59500 | 0.01700 | 0.04980 | 0.00160 | 0.77463 | 474.0 | 11.0 | 313.5 | 9.7 | 1331 | 42 | DISC | DISC | 33.9 | Single Age |
| MGA01_8 | 146.1 | 0.70 | 11.04000 | 0.16000 | 0.47960 | 0.00780 | 0.90976 | 2525.0 | 13.0 | 2524.0 | 34.0 | 2520 | 13 | 2520.0 | 13.0 | 0.2 | Single Age |
| MGA01_9 | 100.3 | 0.72 | 1.28700 | 0.01800 | 0.13850 | 0.00160 | 0.49934 | 840.3 | 8.1 | 836.1 | 9.1 | 864 | 27 | 836.1 | 9.1 | 0.5 | Single Age |
| MGA01_10 | 720 | 4.21 | 9.85000 | 0.11000 | 0.43530 | 0.00550 | 0.78592 | 2420.0 | 11.0 | 2329.0 | 25.0 | 2489 | 11 | 2489.0 | 11.0 | 6.4 | Single Age |
| MGA01_11 | 395 | 1.01 | 1.19400 | 0.01600 | 0.13120 | 0.00190 | 0.76231 | 798.4 | 7.4 | 794.0 | 11.0 | 800 | 20 | 794.0 | 11.0 | 0.6 | Single Age |
| MGA01_12 | 186.2 | 0.98 | 1.20300 | 0.03800 | 0.12780 | 0.00330 | 0.65298 | 801.0 | 17.0 | 775.0 | 19.0 | 865 | 40 | 775.0 | 19.0 | 3.2 | Single Age |
| MGA01_13 | 335 | 1.16 | 1.35800 | 0.01200 | 0.14090 | 0.00130 | 0.59741 | 870.8 | 5.4 | 849.7 | 7.5 | 907 | 18 | 849.7 | 7.5 | 2.4 | Single Age |
| MGA01_14 | 276 | 0.64 | 1.19600 | 0.01800 | 0.12720 | 0.00260 | 0.75241 | 798.3 | 8.3 | 771.0 | 15.0 | 881 | 25 | 771.0 | 15.0 | 3.4 | Single Age |
| MGA01_15 | 244 | 1.13 | 1.43200 | 0.01900 | 0.14980 | 0.00200 | 0.27087 | 901.9 | 7.8 | 899.0 | 11.0 | 891 | 24 | 891.0 | 24.0 | 0.9 | Single Age |

Table 4 Main Central Thrust hanging wall zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MGA01_16 | 114.4 | 0.94 | 1.69600 | 0.02000 | 0.16600 | 0.00180 | 0.32991 | 1006.5 | 7.7 | 990.0 | 10.0 | 1040 | 24 | 1040.0 | 24.0 | 4.8 | Single Age |
| MGA01_17 | 376.1 | 0.55 | 1.25100 | 0.03400 | 0.13120 | 0.00180 | 0.22548 | 817.0 | 10.0 | 796.0 | 10.0 | 878 | 34 | 796.0 | 10.0 | 2.6 | Single Age |
| MGA01_18 | 209 | 1.03 | 1.25900 | 0.02000 | 0.13280 | 0.00210 | 0.70898 | 826.7 | 8.8 | 803.0 | 12.0 | 870 | 24 | 803.0 | 12.0 | 2.9 | Single Age |
| MGA01_19 | 99.3 | 0.53 | 3.64800 | 0.06100 | 0.27030 | 0.00530 | 0.67396 | 1560.0 | 14.0 | 1542.0 | 27.0 | 1570 | 25 | 1570.0 | 25.0 | 1.8 | Single Age |
| MGA01_20 | 522 | 1.03 | 6.71000 | 0.18000 | 0.30570 | 0.00800 | 0.97348 | 2069.0 | 23.0 | 1717.0 | 39.0 | 2437 | 10 | 2437.0 | 9.7 | 29.5 | Single Age |
| MGA01_21 | 266 | 1.37 | 1.72500 | 0.02700 | 0.16640 | 0.00280 | 0.71807 | 1018.0 | 10.0 | 992.0 | 16.0 | 1075 | 21 | 1075.0 | 21.0 | 7.7 | Single Age |
| MGA01_22 | 32.2 | 0.67 | 1.30300 | 0.03700 | 0.12880 | 0.00290 | 0.50936 | 846.0 | 16.0 | 781.0 | 17.0 | 1022 | 61 | 781.0 | 17.0 | 7.7 | Single Age |
| MGA01_23 | 78.1 | 0.34 | 1.19200 | 0.02500 | 0.12920 | 0.00280 | 0.24583 | 796.0 | 12.0 | 783.0 | 16.0 | 799 | 50 | 783.0 | 16.0 | 1.6 | Single Age |
| MGA01_24 | 457 | 0.86 | 1.22100 | 0.01800 | 0.13130 | 0.00220 | 0.69582 | 810.6 | 7.9 | 795.0 | 12.0 | 862 | 20 | 795.0 | 12.0 | 1.9 | Single Age |
| MGA01_25 | 225 | 0.90 | 5.05800 | 0.09300 | 0.32340 | 0.00600 | 0.81289 | 1833.0 | 16.0 | 1806.0 | 29.0 | 1852 | 21 | 1852.0 | 21.0 | 2.5 | Single Age |
| MGA01_26 | 102.2 | 0.79 | 1.23300 | 0.02500 | 0.12930 | 0.00190 | 0.04584 | 815.0 | 11.0 | 784.0 | 11.0 | 901 | 42 | 784.0 | 11.0 | 3.8 | Single Age |
| MGA01_27 | 86.6 | 0.59 | 1.14000 | 0.02100 | 0.12440 | 0.00210 | 0.53352 | 771.8 | 9.8 | 756.0 | 12.0 | 823 | 40 | 756.0 | 12.0 | 2.0 | Single Age |
| MGA01_28 | 75.9 | 1.20 | 1.34900 | 0.02400 | 0.14210 | 0.00210 | 0.54917 | 868.0 | 9.8 | 858.0 | 12.0 | 907 | 33 | 907.0 | 33.0 | 5.4 | Single Age |
| MGA01_29 | 139 | 1.26 | 1.21200 | 0.01500 | 0.13240 | 0.00160 | 0.43612 | 806.5 | 6.9 | 801.5 | 9.3 | 830 | 28 | 801.5 | 9.3 | 0.6 | Single Age |
| MGA01_30 | 178.8 | 0.58 | 1.21800 | 0.02600 | 0.12800 | 0.00330 | 0.43621 | 808.0 | 12.0 | 776.0 | 19.0 | 885 | 39 | 776.0 | 19.0 | 4.0 | Single Age |
| MGA01_31 | 0.119 | 0.35 | 299.00000 | 67.00000 | 2.52000 | 0.54000 | 0.97683 | 5790.0 | 240.0 | 7900.0 | 910.0 | 5100 | 100 | DISC | DISC | 54.9 | Single Age |
| MGA01_34 | 258 | 0.56 | 1.29300 | 0.01600 | 0.13830 | 0.00140 | 0.54508 | 842.3 | 7.2 | 834.7 | 8.0 | 870 | 20 | 834.7 | 8.0 | 0.9 | Single Age |
| MGA01_35 | 302.3 | 0.58 | 10.19000 | 0.11000 | 0.45240 | 0.00600 | 0.81873 | 2451.3 | 9.5 | 2405.0 | 27.0 | 2495 | 15 | 2495.0 | 15.0 | 3.6 | Single Age |
| MGA01_36 | 354 | 1.13 | 1.23700 | 0.03900 | 0.12720 | 0.00410 | 0.71835 | 817.0 | 18.0 | 772.0 | 24.0 | 931 | 52 | 772.0 | 24.0 | 5.5 | Single Age |
| MGA01_38 | 57.9 | 0.60 | 1.36300 | 0.06500 | 0.14160 | 0.00490 | 0.70843 | 872.0 | 28.0 | 853.0 | 28.0 | 922 | 63 | 922.0 | 63.0 | 7.5 | Single Age |
| MGA01_40 | 164.3 | 1.65 | 1.29600 | 0.01500 | 0.13920 | 0.00170 | 0.58342 | 844.2 | 6.7 | 840.2 | 9.5 | 859 | 24 | 840.2 | 9.5 | 0.5 | Single Age |
| MGA01_41 | 94.4 | 0.51 | 1.25900 | 0.06500 | 0.08330 | 0.00290 | 0.34238 | 819.0 | 29.0 | 517.0 | 18.0 | 1767 | 97 | DISC | DISC | 36.9 | Single Age |
| MGA01_42 | 472 | 8.90 | 1.50400 | 0.04000 | 0.15060 | 0.00290 | 0.59490 | 933.0 | 17.0 | 904.0 | 17.0 | 1032 | 45 | 1032.0 | 45.0 | 12.4 | Single Age |
| MGA01_43 | 168.3 | 0.97 | 1.27100 | 0.01800 | 0.13040 | 0.00160 | 0.61565 | 832.0 | 8.0 | 790.1 | 9.1 | 952 | 25 | 790.1 | 9.1 | 5.0 | Single Age |
| MGA01_44 | 67.7 | 0.47 | 5.89400 | 0.05500 | 0.34750 | 0.00360 | 0.70543 | 1959.9 | 8.1 | 1922.0 | 17.0 | 2003 | 13 | 2003.0 | 13.0 | 4.0 | Single Age |
| MGA01_45 | 73.3 | 0.75 | 1.20900 | 0.02800 | 0.13020 | 0.00250 | 0.28262 | 803.0 | 13.0 | 790.0 | 14.0 | 849 | 47 | 790.0 | 14.0 | 1.6 | Single Age |
| MGA01_46 | 310.5 | 4.10 | 1.48700 | 0.04300 | 0.15080 | 0.00450 | 0.54823 | 927.0 | 17.0 | 909.0 | 24.0 | 987 | 53 | 987.0 | 53.0 | 7.9 | Single Age |
| MGA01_47 | 505 | 1.50 | 3.46200 | 0.06000 | 0.25160 | 0.00460 | 0.91290 | 1518.0 | 14.0 | 1446.0 | 24.0 | 1622 | 13 | 1622.0 | 13.0 | 10.9 | Single Age |
| MGA01_48 | 49.5 | 0.91 | 1.27800 | 0.04400 | 0.12390 | 0.00350 | 0.15006 | 834.0 | 19.0 | 752.0 | 20.0 | 1009 | 85 | 752.0 | 20.0 | 9.8 | Single Age |
| MGA01_49 | 165.3 | 0.73 | 1.34100 | 0.02200 | 0.14040 | 0.00250 | 0.63686 | 862.9 | 9.7 | 847.0 | 14.0 | 905 | 33 | 847.0 | 14.0 | 1.8 | Single Age |
| MGA01_50 | 168.1 | 0.91 | 1.14100 | 0.02900 | 0.11810 | 0.00280 | 0.40497 | 774.0 | 13.0 | 720.0 | 16.0 | 905 | 40 | 720.0 | 16.0 | 7.0 | Single Age |
| MGA01_52 | 202.3 | 0.78 | 1.17900 | 0.01400 | 0.12780 | 0.00150 | 0.57646 | 791.4 | 6.3 | 775.5 | 8.8 | 825 | 24 | 775.5 | 8.8 | 2.0 | Single Age |
| MGA01_53 | 53.5 | 0.91 | 1.13500 | 0.02500 | 0.11980 | 0.00220 | 0.40948 | 769.0 | 12.0 | 729.0 | 13.0 | 888 | 48 | 729.0 | 13.0 | 5.2 | Single Age |
| MGA01_54 | 345 | 0.36 | 3.02400 | 0.02900 | 0.24050 | 0.00260 | 0.71774 | 1414.0 | 7.5 | 1389.0 | 13.0 | 1442 | 15 | 1442.0 | 15.0 | 3.7 | Single Age |
| MGA01_55 | 1130 | 17.40 | 1.32200 | 0.05500 | 0.13270 | 0.00480 | 0.79308 | 860.0 | 23.0 | 803.0 | 27.0 | 1012 | 57 | 803.0 | 27.0 | 6.6 | Single Age |
| MGA01_56 | 23.93 | 0.57 | 1.30600 | 0.04700 | 0.12890 | 0.00260 | 0.08670 | 846.0 | 21.0 | 781.0 | 15.0 | 1007 | 75 | 781.0 | 15.0 | 7.7 | Single Age |
| MGA01_57 | 270 | 3.41 | 9.79000 | 0.14000 | 0.44160 | 0.00600 | 0.76981 | 2418.0 | 13.0 | 2357.0 | 27.0 | 2458 | 17 | 2458.0 | 17.0 | 4.1 | Single Age |
| MGA01_58 | 402.7 | 2.31 | 3.05300 | 0.02400 | 0.24590 | 0.00240 | 0.67398 | 1422.4 | 6.4 | 1417.0 | 12.0 | 1414 | 14 | 1414.0 | 14.0 | 0.2 | Single Age |
| MGA01_60 | 138.7 | 1.65 | 1.39200 | 0.01900 | 0.14410 | 0.00200 | 0.25776 | 886.4 | 8.4 | 868.0 | 11.0 | 922 | 37 | 922.0 | 37.0 | 5.9 | Single Age |
| MGA01_61 | 69.6 | 0.85 | 1.24900 | 0.02300 | 0.12890 | 0.00140 | 0.31983 | 822.0 | 10.0 | 781.3 | 8.2 | 933 | 39 | 781.3 | 8.2 | 5.0 | Single Age |
| MGA01_62 | 138 | 0.42 | 1.20200 | 0.02600 | 0.13080 | 0.00270 | 0.47758 | 801.0 | 12.0 | 792.0 | 16.0 | 820 | 47 | 792.0 | 16.0 | 1.1 | Single Age |
| MGA01_63 | 6.8 | 0.02 | - | 200.00000 | 13.90000 | 1.70000 | 0.99836 | 7540.0 | 120.0 | 17590.0 | 680.0 | 5067 | 18 | DISC | DISC | 247.1 | Single Age |

Table 4 Main Central Thrust hanging wall zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MGA01_64 | 340.3 | 2.82 | 1.38300 | 0.02100 | 0.14470 | 0.00260 | 0.58221 | 881.4 | 9.2 | 871.0 | 15.0 | 898 | 24 | 898.0 | 24.0 | 3.0 | Single Age |
| MGA01_66 | 910 | 1.80 | 2.81100 | 0.08100 | 0.17480 | 0.00520 | 0.97378 | 1360.0 | 22.0 | 1037.0 | 29.0 | 1907 | 14 | DISC | DISC | 45.6 | Single Age |
| MGA01_68 | 55.6 | 0.64 | 1.24700 | 0.02600 | 0.13000 | 0.00200 | 0.56558 | 823.0 | 12.0 | 788.0 | 11.0 | 904 | 37 | 788.0 | 11.0 | 4.3 | Single Age |
| MGA01_69 | 272.5 | 0.66 | 1.20100 | 0.01400 | 0.12960 | 0.00190 | 0.47241 | 801.8 | 6.6 | 785.0 | 11.0 | 849 | 29 | 785.0 | 11.0 | 2.1 | Single Age |
| MGA01_70 | 192 | 4.31 | 1.91400 | 0.07700 | 0.18340 | 0.00870 | 0.62341 | 1087.0 | 26.0 | 1083.0 | 47.0 | 1039 | 80 | 1039.0 | 80.0 | 4.2 | Single Age |
| MGA01_71 | 105.3 | 0.76 | 1.22100 | 0.03200 | 0.13210 | 0.00360 | 0.52259 | 810.0 | 15.0 | 800.0 | 21.0 | 844 | 55 | 800.0 | 21.0 | 1.2 | Single Age |
| MGA01_73 | 6.28 | 0.06 | - | 77.00000 | 12.67000 | 0.76000 | 0.90806 | 7400.0 | 53.0 | 16840.0 | 370.0 | 5065 | 39 | DISC | DISC | 232.5 | Single Age |
| MGA01_74 | 540 | 2.54 | 2.57600 | 0.03600 | 0.20860 | 0.00330 | 0.81750 | 1294.0 | 10.0 | 1221.0 | 17.0 | 1418 | 20 | 1418.0 | 20.0 | 13.9 | Single Age |
| MGA01_75 | 155.3 | 0.67 | 1.19000 | 0.01900 | 0.12820 | 0.00180 | 0.47013 | 795.6 | 8.9 | 778.0 | 11.0 | 843 | 36 | 778.0 | 11.0 | 2.2 | Single Age |
| MGA01_76 | 285.9 | 0.78 | 1.41200 | 0.02300 | 0.12720 | 0.00170 | 0.40739 | 893.6 | 9.5 | 771.7 | 9.7 | 1193 | 34 | DISC | DISC | 13.6 | Single Age |
| MGA01_77 | 0.0017 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| MGA01_78 | 75.72 | 0.58 | 1.22300 | 0.02700 | 0.13040 | 0.00210 | 0.38806 | 811.0 | 12.0 | 790.0 | 12.0 | 862 | 48 | 790.0 | 12.0 | 2.6 | Single Age |
| MGA01_79 | 249 | 0.68 | 1.10700 | 0.02500 | 0.10420 | 0.00230 | 0.90663 | 755.0 | 12.0 | 639.0 | 14.0 | 1109 | 19 | DISC | DISC | 15.4 | Single Age |
| MGA01_80 | 571 | 1.95 | 2.66800 | 0.05800 | 0.18880 | 0.00390 | 0.55965 | 1318.0 | 16.0 | 1115.0 | 21.0 | 1679 | 34 | DISC | DISC | 33.6 | Single Age |
| MGA01_81 | 225 | 0.90 | 1.02100 | 0.01500 | 0.10730 | 0.00200 | 0.70674 | 714.0 | 7.4 | 657.0 | 12.0 | 881 | 30 | 657.0 | 12.0 | 8.0 | Single Age |
| MGA01_82 | 143 | 3.06 | 1.73000 | 0.03600 | 0.16610 | 0.00350 | 0.64950 | 1020.0 | 14.0 | 990.0 | 19.0 | 1065 | 32 | 1065.0 | 32.0 | 7.0 | Single Age |
| MGA01_83 | 160 | 1.91 | 1.44800 | 0.02900 | 0.14510 | 0.00270 | 0.42527 | 908.0 | 12.0 | 873.0 | 15.0 | 972 | 36 | 972.0 | 36.0 | 10.2 | Single Age |
| MGA01_84 | 2 | 0.06 | - | 190.00000 | 9.70000 | 1.60000 | 0.99642 | 7010.0 | 160.0 | 14590.0 | 910.0 | 5059 | 24 | DISC | DISC | 188.4 | Single Age |
| MGA01_85 | -7.1346E-06 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| MGA01_86 | 105.3 | 0.43 | 1.22600 | 0.01700 | 0.12900 | 0.00230 | 0.39963 | 813.3 | 8.0 | 782.0 | 13.0 | 879 | 36 | 782.0 | 13.0 | 3.8 | Single Age |
| MGA01_88 | 157.8 | 1.75 | 4.10700 | 0.06400 | 0.28890 | 0.00600 | 0.65494 | 1655.0 | 13.0 | 1636.0 | 30.0 | 1680 | 30 | 1680.0 | 30.0 | 2.6 | Single Age |
| MGA01_90 | 1.32 | 0.59 | 133.00000 | 12.00000 | 1.19000 | 0.12000 | 0.75134 | 4954.0 | 90.0 | 4960.0 | 330.0 | 5018 | 50 | 5018.0 | 50.0 | 1.2 | Single Age |
| MGA01_91 | 756 | 6.15 | 1.00910 | 0.00860 | 0.10099 | 0.00086 | 0.56457 | 708.3 | 4.3 | 620.2 | 5.0 | 1000 | 14 | DISC | DISC | 12.4 | Single Age |
| MGA01_92 | 0.006 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| MGA01_94 | 266 | 0.72 | 1.28000 | 0.02100 | 0.13990 | 0.00270 | 0.73829 | 837.2 | 9.4 | 843.0 | 15.0 | 839 | 26 | 843.0 | 15.0 | 0.7 | Single Age |
| MGA01_95 | 124.2 | 0.66 | 1.20400 | 0.02200 | 0.13080 | 0.00210 | 0.47256 | 802.0 | 10.0 | 792.0 | 12.0 | 843 | 37 | 792.0 | 12.0 | 1.2 | Single Age |
| MGA01_97 | 142.6 | 0.59 | 1.15400 | 0.01600 | 0.12320 | 0.00170 | 0.55321 | 778.5 | 7.7 | 749.0 | 9.7 | 839 | 27 | 749.0 | 9.7 | 3.8 | Single Age |
| MGA01_98 | 145.7 | 0.83 | 1.16000 | 0.01200 | 0.12460 | 0.00130 | 0.48925 | 781.8 | 5.8 | 756.9 | 7.6 | 860 | 22 | 756.9 | 7.6 | 3.2 | Single Age |
| MGA01_99 | 300.8 | 0.41 | 1.19300 | 0.01700 | 0.12730 | 0.00180 | 0.57403 | 796.7 | 8.1 | 772.0 | 10.0 | 866 | 24 | 772.0 | 10.0 | 3.1 | Single Age |
| MGA01_100 | 54.6 | 0.73 | 1.19000 | 0.02300 | 0.12120 | 0.00220 | 0.32522 | 796.0 | 11.0 | 737.0 | 13.0 | 978 | 45 | 737.0 | 13.0 | 7.4 | Single Age |
| MGA01_103 | 0.0033 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| MGA01_104 | 139 | 0.72 | 1.18100 | 0.01500 | 0.12590 | 0.00150 | 0.47405 | 791.1 | 7.1 | 764.3 | 8.5 | 877 | 26 | 764.3 | 8.5 | 3.4 | Single Age |
| MGA01_105 | 199 | 0.89 | 1.22900 | 0.02800 | 0.12670 | 0.00140 | 0.24677 | 809.0 | 11.0 | 768.9 | 7.7 | 921 | 35 | 768.9 | 7.7 | 5.0 | Single Age |
| MGA01_107 | 148.3 | 0.78 | 1.20300 | 0.01800 | 0.13120 | 0.00150 | 0.39821 | 802.2 | 8.0 | 794.4 | 8.7 | 835 | 30 | 794.4 | 8.7 | 1.0 | Single Age |
| MGA01_108 | 100.2 | 0.50 | 1.21800 | 0.01900 | 0.12780 | 0.00120 | 0.06922 | 809.6 | 8.5 | 775.4 | 6.8 | 916 | 34 | 775.4 | 6.8 | 4.2 | Single Age |
| MGA01_109 | 174.9 | 1.54 | 1.37100 | 0.01300 | 0.14600 | 0.00160 | 0.38596 | 877.7 | 5.7 | 878.5 | 8.7 | 889 | 24 | 889.0 | 24.0 | 1.2 | Single Age |
| MGA01_110 | 161.8 | 0.55 | 1.44600 | 0.03100 | 0.12820 | 0.00150 | 0.44132 | 907.0 | 13.0 | 777.6 | 8.4 | 1230 | 35 | DISC | DISC | 14.3 | Single Age |
| MGA01_111 | 197.3 | 0.36 | 4.67900 | 0.04800 | 0.30560 | 0.00390 | 0.60134 | 1763.9 | 8.3 | 1718.0 | 19.0 | 1820 | 18 | 1820.0 | 18.0 | 5.6 | Single Age |
| MGA01_112 | 66 | 0.26 | 1.18900 | 0.02700 | 0.12650 | 0.00200 | 0.35288 | 794.0 | 12.0 | 768.0 | 11.0 | 871 | 46 | 768.0 | 11.0 | 3.3 | Single Age |
| MGA01_114 | 48.4 | 0.46 | 6.08500 | 0.06100 | 0.35720 | 0.00420 | 0.36579 | 1988.7 | 9.0 | 1968.0 | 20.0 | 2013 | 21 | 2013.0 | 21.0 | 2.2 | Single Age |
| MGA01_118 | 161.1 | 2.09 | 1.36600 | 0.02400 | 0.14610 | 0.00260 | 0.61074 | 875.0 | 10.0 | 879.0 | 15.0 | 875 | 33 | 875.0 | 33.0 | 0.5 | Single Age |
| MGA01_119 | 119.4 | 0.86 | 1.18400 | 0.02000 | 0.12480 | 0.00170 | 0.40165 | 795.1 | 9.5 | 759.1 | 9.9 | 912 | 39 | 759.1 | 9.9 | 4.5 | Single Age |

Table 4 Main Central Thrust hanging wall zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CRM06_1 | 170 | 0.89 | 1.16800 | 0.01600 | 0.12780 | 0.00200 | 0.54334 | 785.2 | 7.4 | 775.0 | 12.0 | 798 | 28 | 775.0 | 12.0 | 1.3 | Single Age |
| CRM06_2 | 131 | 0.74 | 3.83000 | 0.04300 | 0.27850 | 0.00390 | 0.63378 | 1598.2 | 9.0 | 1586.0 | 20.0 | 1608 | 22 | 1608.0 | 22.0 | 1.4 | Single Age |
| CRM06_3 | 157 | 2.64 | 1.30300 | 0.02100 | 0.13960 | 0.00160 | 0.29579 | 846.1 | 9.2 | 842.3 | 8.9 | 860 | 30 | 842.3 | 8.9 | 0.4 | Single Age |
| CRM06_4 | 45.2 | 1.55 | 1.17700 | 0.02300 | 0.13060 | 0.00210 | 0.09603 | 789.0 | 11.0 | 791.0 | 12.0 | 781 | 48 | 791.0 | 12.0 | 0.3 | Single Age |
| CRM06_5 | 128 | 1.59 | 1.21000 | 0.02400 | 0.13200 | 0.00240 | 0.50405 | 807.0 | 11.0 | 799.0 | 14.0 | 826 | 41 | 799.0 | 14.0 | 1.0 | Single Age |
| CRM06_6 | 91.1 | 0.52 | 1.41400 | 0.02200 | 0.14870 | 0.00210 | 0.52850 | 893.9 | 9.4 | 893.0 | 12.0 | 921 | 30 | 921.0 | 30.0 | 3.0 | Single Age |
| CRM06_7 | 486 | 1.32 | 0.90200 | 0.01000 | 0.10630 | 0.00120 | 0.73388 | 652.6 | 5.4 | 651.4 | 7.2 | 660 | 19 | 651.4 | 7.2 | 0.2 | Single Age |
| CRM06_8 | 81.4 | 1.54 | 4.82200 | 0.05300 | 0.31550 | 0.00260 | 0.47515 | 1788.0 | 9.2 | 1767.0 | 13.0 | 1826 | 17 | 1826.0 | 17.0 | 3.2 | Single Age |
| CRM06_9 | 162 | 1.22 | 1.31300 | 0.02000 | 0.14200 | 0.00160 | 0.61178 | 851.9 | 9.1 | 855.6 | 9.0 | 841 | 29 | 841.0 | 9.0 | 0.4 | Single Age |
| CRM06_10 | 248 | 0.99 | 10.41000 | 0.14000 | 0.43630 | 0.00500 | 0.78776 | 2473.0 | 13.0 | 2336.0 | 22.0 | 2586 | 14 | 2586.0 | 14.0 | 9.7 | Single Age |
| CRM06_11 | 236 | 8.40 | 3.76800 | 0.02700 | 0.28160 | 0.00230 | 0.62189 | 1585.6 | 5.7 | 1601.0 | 12.0 | 1577 | 11 | 1577.0 | 11.0 | 1.5 | Single Age |
| CRM06_12 | 217.8 | 0.94 | 4.58500 | 0.03100 | 0.31210 | 0.00200 | 0.52770 | 1746.3 | 5.6 | 1750.7 | 9.6 | 1746 | 11 | 1746.0 | 11.0 | 0.3 | Single Age |
| CRM06_13 | 89.7 | 0.24 | 2.17000 | 0.03200 | 0.19890 | 0.00280 | 0.12978 | 1171.0 | 10.0 | 1169.0 | 15.0 | 1180 | 37 | 1180.0 | 37.0 | 0.9 | Single Age |
| CRM06_14 | 77.7 | 0.90 | 3.54500 | 0.04200 | 0.26910 | 0.00320 | 0.46757 | 1536.3 | 9.4 | 1536.0 | 16.0 | 1561 | 22 | 1561.0 | 22.0 | 1.6 | Single Age |
| CRM06_15 | 148.2 | 1.05 | 3.71500 | 0.02900 | 0.27890 | 0.00220 | 0.42353 | 1574.4 | 6.1 | 1586.0 | 11.0 | 1563 | 16 | 1563.0 | 16.0 | 1.5 | Single Age |
| CRM06_16 | 67.8 | 0.55 | 11.15000 | 0.16000 | 0.47620 | 0.00620 | 0.42487 | 2535.0 | 14.0 | 2510.0 | 27.0 | 2545 | 22 | 2545.0 | 22.0 | 1.4 | Single Age |
| CRM06_17 | 144 | 0.54 | 1.11500 | 0.04100 | 0.12370 | 0.00320 | 0.61952 | 759.0 | 20.0 | 756.0 | 17.0 | 806 | 57 | 756.0 | 17.0 | 0.4 | Single Age |
| CRM06_18 | 183.9 | 0.73 | 1.33100 | 0.01800 | 0.14180 | 0.00160 | 0.61266 | 858.8 | 8.0 | 854.4 | 8.8 | 879 | 26 | 879.0 | 26.0 | 2.8 | Single Age |
| CRM06_19 | 267 | 0.90 | 3.64000 | 0.03900 | 0.27270 | 0.00240 | 0.57684 | 1558.7 | 8.6 | 1554.0 | 12.0 | 1577 | 17 | 1577.0 | 17.0 | 1.5 | Single Age |
| CRM06_20 | 187 | 0.71 | 3.51000 | 0.04400 | 0.26010 | 0.00260 | 0.48531 | 1528.7 | 9.9 | 1490.0 | 13.0 | 1594 | 20 | 1594.0 | 20.0 | 6.5 | Single Age |
| CRM06_21 | 431 | 56.80 | 5.99000 | 0.14000 | 0.35150 | 0.00360 | 0.81026 | 1977.0 | 21.0 | 1943.0 | 18.0 | 2037 | 27 | 2037.0 | 27.0 | 4.6 | Single Age |
| CRM06_22 | 405 | 1.16 | 3.49500 | 0.02300 | 0.26150 | 0.00160 | 0.54182 | 1525.8 | 5.1 | 1497.3 | 8.3 | 1582 | 11 | 1582.0 | 11.0 | 5.4 | Single Age |
| CRM06_23 | 214 | 0.98 | 3.79200 | 0.03800 | 0.27930 | 0.00250 | 0.54517 | 1591.4 | 8.1 | 1588.0 | 13.0 | 1608 | 16 | 1608.0 | 16.0 | 1.2 | Single Age |
| CRM06_24 | 307 | 0.82 | 3.28800 | 0.03500 | 0.25190 | 0.00220 | 0.64528 | 1477.6 | 8.4 | 1448.0 | 11.0 | 1546 | 17 | 1546.0 | 17.0 | 6.3 | Single Age |
| CRM06_25 | 180.4 | 1.26 | 1.27800 | 0.01700 | 0.13820 | 0.00140 | 0.36905 | 836.3 | 7.9 | 834.2 | 8.2 | 861 | 34 | 834.2 | 8.2 | 0.3 | Single Age |
| CRM06_26 | 172.3 | 0.70 | 3.51400 | 0.03100 | 0.25670 | 0.00360 | 0.00216 | 1530.3 | 6.9 | 1472.0 | 19.0 | 1621 | 30 | 1621.0 | 30.0 | 9.2 | Single Age |
| CRM06_27 | 689 | 1.59 | 6.09000 | 0.11000 | 0.34160 | 0.00590 | 0.92009 | 1987.0 | 16.0 | 1894.0 | 28.0 | 2102 | 16 | 2102.0 | 16.0 | 9.9 | Single Age |
| CRM06_29 | 432 | 4.26 | 7.38000 | 0.10000 | 0.35250 | 0.00460 | 0.77365 | 2157.0 | 13.0 | 1946.0 | 22.0 | 2378 | 14 | 2378.0 | 14.0 | 18.2 | Single Age |
| CRM06_30 | 136 | 0.78 | 2.15200 | 0.02600 | 0.19780 | 0.00180 | 0.43807 | 1165.2 | 8.3 | 1163.4 | 9.8 | 1190 | 22 | 1190.0 | 22.0 | 2.2 | Single Age |
| CRM06_31 | 249 | 2.95 | 4.41700 | 0.03600 | 0.30400 | 0.00220 | 0.77709 | 1715.1 | 6.7 | 1711.0 | 11.0 | 1739 | 12 | 1739.0 | 12.0 | 1.6 | Single Age |
| CRM06_32 | 481 | 3.97 | 1.28300 | 0.01200 | 0.13800 | 0.00130 | 0.56829 | 838.6 | 5.3 | 833.3 | 7.2 | 880 | 16 | 833.3 | 7.2 | 0.6 | Single Age |
| CRM06_33 | 513 | 2.31 | 2.16300 | 0.04200 | 0.20070 | 0.00400 | 0.78008 | 1169.0 | 13.0 | 1179.0 | 21.0 | 1187 | 27 | 1187.0 | 27.0 | 0.7 | Single Age |
| CRM06_34 | 109.5 | 0.77 | 1.27900 | 0.02100 | 0.13810 | 0.00110 | 0.06343 | 837.8 | 9.3 | 834.0 | 6.4 | 864 | 37 | 834.0 | 6.4 | 0.5 | Single Age |
| CRM06_35 | 579 | 1.44 | 1.59700 | 0.01800 | 0.16260 | 0.00180 | 0.83340 | 968.7 | 7.2 | 970.8 | 9.9 | 972 | 15 | 972.0 | 15.0 | 0.1 | Single Age |
| CRM06_36 | 114.5 | 1.08 | 3.16800 | 0.03300 | 0.24750 | 0.00260 | 0.46945 | 1448.8 | 8.0 | 1425.0 | 13.0 | 1490 | 21 | 1490.0 | 21.0 | 4.4 | Single Age |
| CRM06_37 | 95.8 | 0.82 | 3.63500 | 0.04400 | 0.27420 | 0.00280 | 0.67816 | 1556.3 | 9.6 | 1562.0 | 14.0 | 1558 | 21 | 1558.0 | 21.0 | 0.3 | Single Age |
| CRM06_38 | 77.2 | 0.46 | 3.69100 | 0.03700 | 0.27680 | 0.00290 | 0.54562 | 1570.9 | 7.6 | 1575.0 | 15.0 | 1581 | 19 | 1581.0 | 19.0 | 0.4 | Single Age |
| CRM06_39 | 457 | 0.91 | 5.03300 | 0.04200 | 0.31860 | 0.00320 | 0.68231 | 1824.5 | 7.0 | 1782.0 | 15.0 | 1881 | 13 | 1881.0 | 13.0 | 5.3 | Single Age |
| CRM06_40 | 115.6 | 0.50 | 3.69000 | 0.08700 | 0.26940 | 0.00530 | 0.94230 | 1566.0 | 19.0 | 1537.0 | 27.0 | 1614 | 19 | 1614.0 | 19.0 | 4.8 | Single Age |
| CRM06_41 | 142.8 | 0.62 | 1.45000 | 0.02000 | 0.15490 | 0.00170 | 0.65056 | 909.4 | 8.5 | 928.5 | 9.4 | 867 | 23 | 867.0 | 23.0 | 7.1 | Single Age |
| CRM06_42 | 364 | 2.17 | 2.70200 | 0.02500 | 0.22710 | 0.00170 | 0.64029 | 1328.7 | 6.7 | 1319.1 | 9.0 | 1354 | 14 | 1354.0 | 14.0 | 2.6 | Single Age |
| CRM06_43 | 60.2 | 0.79 | 1.99900 | 0.03100 | 0.19220 | 0.00220 | 0.42913 | 1117.0 | 11.0 | 1133.0 | 12.0 | 1093 | 33 | 1093.0 | 33.0 | 3.7 | Single Age |

Table 4 Main Central Thrust hanging wall zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CRM06_44 | 188.7 | 0.99 | 3.12600 | 0.06000 | 0.24720 | 0.00490 | 0.37084 | 1439.0 | 15.0 | 1424.0 | 25.0 | 1497 | 40 | 1497.0 | 40.0 | 4.9 | Single Age |
| CRM06_45 | 119.4 | 0.82 | 6.03400 | 0.08200 | 0.35620 | 0.00530 | 0.66691 | 1982.0 | 11.0 | 1964.0 | 25.0 | 2020 | 20 | 2020.0 | 20.0 | 2.8 | Single Age |
| CRM06_46 | 326 | 4.03 | 5.14100 | 0.03400 | 0.32890 | 0.00200 | 0.52010 | 1842.7 | 5.7 | 1833.1 | 9.9 | 1859 | 11 | 1859.0 | 11.0 | 1.4 | Single Age |
| CRM06_47 | 599 | 3.55 | - | - | - | - | - | - | - | - | - | 1453 | 10 | - | - | - | Single Age |
| CRM06_48 | 274.7 | 0.91 | 11.09300 | 0.08800 | 0.48180 | 0.00390 | 0.79223 | 2530.6 | 7.4 | 2535.0 | 17.0 | 2536 | 9 | 2536.2 | 8.7 | 0.0 | Single Age |
| CRM06_49 | 181 | 1.39 | 5.38500 | 0.04400 | 0.34100 | 0.00320 | 0.55946 | 1882.1 | 7.0 | 1891.0 | 16.0 | 1871 | 14 | 1871.0 | 14.0 | 1.1 | Single Age |
| CRM06_50 | 392.9 | 2.49 | 5.30700 | 0.05900 | 0.33300 | 0.00330 | 0.69186 | 1872.5 | 9.0 | 1853.0 | 16.0 | 1902 | 15 | 1902.0 | 15.0 | 2.6 | Single Age |
| CRM06_51 | 336 | 1.08 | 3.59800 | 0.04200 | 0.27040 | 0.00340 | 0.80975 | 1548.7 | 9.2 | 1543.0 | 17.0 | 1575 | 17 | 1575.0 | 17.0 | 2.0 | Single Age |
| CRM06_52 | 154.7 | 0.79 | 1.34700 | 0.02100 | 0.14500 | 0.00180 | 0.74865 | 865.4 | 9.0 | 873.0 | 10.0 | 864 | 29 | 864.0 | 29.0 | 1.0 | Single Age |
| CRM06_53 | 266 | 0.96 | 3.35100 | 0.03500 | 0.25490 | 0.00200 | 0.69398 | 1492.6 | 8.3 | 1464.0 | 10.0 | 1541 | 13 | 1541.0 | 13.0 | 5.0 | Single Age |
| CRM06_54 | 100.7 | 0.42 | 1.29300 | 0.04300 | 0.13060 | 0.00200 | 0.32924 | 839.0 | 18.0 | 791.0 | 11.0 | 1004 | 61 | 791.0 | 11.0 | 5.7 | Single Age |
| CRM06_55 | 1033 | 1.40 | 0.86020 | 0.00620 | 0.10292 | 0.00075 | 0.53159 | 630.1 | 3.4 | 631.5 | 4.4 | 653 | 14 | 631.5 | 4.4 | 0.2 | Single Age |
| CRM06_56 | 548 | 6.94 | 4.17500 | 0.06300 | 0.28510 | 0.00560 | 0.82481 | 1669.0 | 12.0 | 1616.0 | 28.0 | 1773 | 19 | 1773.0 | 19.0 | 8.9 | Single Age |
| CRM06_57 | 156.7 | 1.32 | 4.74800 | 0.04000 | 0.31580 | 0.00270 | 0.55425 | 1775.4 | 7.1 | 1769.0 | 13.0 | 1784 | 15 | 1784.0 | 15.0 | 0.8 | Single Age |
| CRM06_58 | 256 | 0.47 | 2.05800 | 0.01800 | 0.19060 | 0.00220 | 0.52664 | 1134.5 | 6.1 | 1125.0 | 12.0 | 1148 | 21 | 1148.0 | 21.0 | 2.0 | Single Age |
| CRM06_59 | 184.3 | 1.49 | 5.34300 | 0.04500 | 0.34220 | 0.00310 | 0.66173 | 1875.2 | 7.2 | 1899.0 | 15.0 | 1858 | 12 | 1858.0 | 12.0 | 2.2 | Single Age |
| CRM06_60 | 83.9 | 0.49 | 3.65700 | 0.04000 | 0.27410 | 0.00230 | 0.39568 | 1561.2 | 8.7 | 1561.0 | 12.0 | 1563 | 22 | 1563.0 | 22.0 | 0.1 | Single Age |
| CRM06_61 | 130.5 | 0.67 | 3.78900 | 0.03400 | 0.28250 | 0.00230 | 0.40441 | 1589.9 | 7.3 | 1604.0 | 12.0 | 1567 | 16 | 1567.0 | 16.0 | 2.4 | Single Age |
| CRM06_62 | 79.3 | 0.45 | 3.56500 | 0.04800 | 0.26880 | 0.00260 | 0.56859 | 1541.0 | 11.0 | 1534.0 | 13.0 | 1546 | 23 | 1546.0 | 23.0 | 0.8 | Single Age |
| CRM06_63 | 74.5 | 1.36 | 2.96400 | 0.04100 | 0.24070 | 0.00250 | 0.58972 | 1397.0 | 10.0 | 1390.0 | 13.0 | 1402 | 25 | 1402.0 | 25.0 | 0.9 | Single Age |
| CRM06_64 | 619 | 0.95 | 2.32500 | 0.01700 | 0.20750 | 0.00150 | 0.64251 | 1220.3 | 5.4 | 1215.3 | 7.8 | 1216 | 13 | 1216.0 | 13.0 | 0.1 | Single Age |
| CRM06_65 | 161.7 | 1.39 | 6.43100 | 0.04500 | 0.37400 | 0.00250 | 0.67569 | 2037.0 | 6.3 | 2048.0 | 11.0 | 2015 | 10 | 2015.0 | 10.0 | 1.6 | Single Age |
| CRM06_66 | 217 | 0.41 | 1.20400 | 0.01800 | 0.13310 | 0.00120 | 0.73556 | 802.0 | 8.1 | 805.2 | 6.7 | 768 | 25 | 805.2 | 6.7 | 0.4 | Single Age |
| CRM06_67 | 77.5 | 0.64 | 1.31700 | 0.02000 | 0.14190 | 0.00190 | 0.31635 | 855.0 | 8.9 | 855.0 | 11.0 | 842 | 37 | 842.0 | 11.0 | 0.0 | Single Age |
| CRM06_68 | 362 | 2.34 | 1.38800 | 0.02000 | 0.14580 | 0.00170 | 0.61325 | 885.3 | 8.5 | 877.2 | 9.7 | 890 | 21 | 890.0 | 21.0 | 1.4 | Single Age |
| CRM06_69 | 165.5 | 1.63 | 3.09100 | 0.02700 | 0.24710 | 0.00200 | 0.34700 | 1431.8 | 7.0 | 1423.0 | 10.0 | 1433 | 19 | 1433.0 | 19.0 | 0.7 | Single Age |
| CRM06_70 | 412 | 0.81 | 1.22600 | 0.03100 | 0.13030 | 0.00130 | 0.57357 | 811.0 | 14.0 | 789.7 | 7.6 | 856 | 44 | 789.7 | 7.6 | 2.6 | Single Age |
| CRM06_71 | 160 | 0.83 | 2.75700 | 0.02500 | 0.23160 | 0.00200 | 0.39534 | 1343.7 | 6.7 | 1343.0 | 10.0 | 1329 | 19 | 1329.0 | 19.0 | 1.1 | Single Age |
| CRM06_72 | 273 | 1.96 | 9.63500 | 0.08200 | 0.44310 | 0.00370 | 0.66289 | 2399.9 | 7.9 | 2364.0 | 17.0 | 2421 | 12 | 2421.0 | 12.0 | 2.4 | Single Age |
| CRM06_73 | 155.9 | 1.10 | 3.89000 | 0.04200 | 0.28860 | 0.00310 | 0.61156 | 1612.2 | 8.4 | 1634.0 | 16.0 | 1562 | 17 | 1562.0 | 17.0 | 4.6 | Single Age |
| CRM06_74 | 792 | 2.88 | 1.69900 | 0.01600 | 0.17050 | 0.00190 | 0.53850 | 1007.8 | 6.2 | 1014.0 | 11.0 | 990 | 22 | 990.0 | 22.0 | 2.4 | Single Age |
| CRM06_75 | 219.6 | 1.09 | 4.15000 | 0.12000 | 0.28740 | 0.00420 | 0.91428 | 1663.0 | 21.0 | 1628.0 | 21.0 | 1701 | 42 | 1701.0 | 42.0 | 4.3 | Single Age |
| CRM06_76 | 926 | 1.76 | 0.95700 | 0.03600 | 0.11090 | 0.00370 | 0.92597 | 684.0 | 18.0 | 681.0 | 21.0 | 745 | 23 | 681.0 | 21.0 | 0.4 | Single Age |
| CRM06_77 | 49.4 | 0.65 | 3.51100 | 0.05300 | 0.25970 | 0.00280 | 0.36223 | 1528.0 | 12.0 | 1488.0 | 14.0 | 1578 | 27 | 1578.0 | 27.0 | 5.7 | Single Age |
| CRM06_78 | 115.9 | 0.86 | 5.23200 | 0.04800 | 0.33150 | 0.00290 | 0.52231 | 1857.3 | 7.8 | 1846.0 | 14.0 | 1863 | 15 | 1863.0 | 15.0 | 0.9 | Single Age |
| CRM06_79 | 740 | 5.67 | 9.05000 | 0.16000 | 0.39200 | 0.00680 | 0.79622 | 2344.0 | 16.0 | 2131.0 | 31.0 | 2488 | 15 | 2488.0 | 15.0 | 14.3 | Single Age |
| CRM06_80 | 202.7 | 0.81 | 2.01200 | 0.01900 | 0.18670 | 0.00190 | 0.53972 | 1119.2 | 6.3 | 1103.0 | 10.0 | 1147 | 19 | 1147.0 | 19.0 | 3.8 | Single Age |
| CRM06_81 | 186 | 0.88 | 3.80700 | 0.03200 | 0.27960 | 0.00280 | 0.57652 | 1593.8 | 6.8 | 1589.0 | 14.0 | 1590 | 15 | 1590.0 | 15.0 | 0.1 | Single Age |
| CRM06_82 | 234 | 2.45 | 2.65700 | 0.03500 | 0.22030 | 0.00170 | 0.42659 | 1316.0 | 9.7 | 1283.4 | 9.1 | 1352 | 22 | 1352.0 | 22.0 | 5.1 | Single Age |
| CRM06_83 | 295 | 3.41 | 1.32900 | 0.01600 | 0.14220 | 0.00140 | 0.61816 | 858.0 | 6.8 | 857.1 | 8.0 | 855 | 21 | 855.0 | 21.0 | 0.2 | Single Age |
| CRM06_84 | 110.5 | 1.09 | 2.14100 | 0.02900 | 0.19520 | 0.00170 | 0.15919 | 1162.7 | 9.2 | 1149.6 | 9.2 | 1190 | 28 | 1190.0 | 28.0 | 3.4 | Single Age |
| CRM06_85 | 92 | 0.61 | 1.93500 | 0.03700 | 0.18270 | 0.00220 | 0.48026 | 1095.0 | 14.0 | 1081.0 | 12.0 | 1126 | 39 | 1126.0 | 39.0 | 4.0 | Single Age |

Table 4 Main Central Thrust hanging wall zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CRM06_86 | 41.3 | 0.24 | 3.69700 | 0.09400 | 0.27220 | 0.00780 | 0.41342 | 1569.0 | 21.0 | 1551.0 | 40.0 | 1586 | 50 | 1586.0 | 50.0 | 2.2 | Single Age |
| CRM06_87 | 161.1 | 0.72 | 3.40700 | 0.04300 | 0.26120 | 0.00380 | 0.39132 | 1506.0 | 10.0 | 1496.0 | 19.0 | 1531 | 30 | 1531.0 | 30.0 | 2.3 | Single Age |
| CRM06_88 | 135 | 1.48 | 4.85800 | 0.05200 | 0.30980 | 0.00270 | 0.45047 | 1794.3 | 9.1 | 1740.0 | 13.0 | 1851 | 20 | 1851.0 | 20.0 | 6.0 | Single Age |
| CRM06_89 | 396 | 1.74 | 4.43300 | 0.05900 | 0.29520 | 0.00340 | 0.61977 | 1717.0 | 11.0 | 1667.0 | 17.0 | 1777 | 21 | 1777.0 | 21.0 | 6.2 | Single Age |
| CRM06_90 | 185 | 1.12 | 3.05400 | 0.03800 | 0.23960 | 0.00240 | 0.66720 | 1421.7 | 9.9 | 1384.0 | 13.0 | 1482 | 19 | 1482.0 | 19.0 | 6.6 | Single Age |
| CRM06_91 | 366 | 1.80 | 2.45600 | 0.05900 | 0.20960 | 0.00360 | 0.85771 | 1258.0 | 17.0 | 1229.0 | 19.0 | 1304 | 22 | 1304.0 | 22.0 | 5.8 | Single Age |
| CRM06_92 | 63.2 | 0.73 | 1.91700 | 0.04200 | 0.18260 | 0.00260 | 0.42322 | 1087.0 | 14.0 | 1081.0 | 14.0 | 1129 | 42 | 1129.0 | 42.0 | 4.3 | Single Age |
| CRM06_93 | 140 | 1.04 | 3.62100 | 0.07700 | 0.26290 | 0.00580 | 0.73496 | 1553.0 | 17.0 | 1504.0 | 30.0 | 1614 | 26 | 1614.0 | 26.0 | 6.8 | Single Age |
| CRM06_94 | 67.3 | 0.84 | 0.87200 | 0.02900 | 0.09720 | 0.00210 | 0.10570 | 640.0 | 16.0 | 598.0 | 12.0 | 797 | 81 | 598.0 | 12.0 | 6.6 | Single Age |
| CRM06_95 | 112.8 | 0.93 | 3.42000 | 0.04400 | 0.25570 | 0.00270 | 0.32471 | 1508.0 | 10.0 | 1467.0 | 14.0 | 1570 | 28 | 1570.0 | 28.0 | 6.6 | Single Age |
| CRM06_96 | 225 | 1.97 | 1.74800 | 0.07900 | 0.16010 | 0.00450 | 0.86552 | 1021.0 | 29.0 | 959.0 | 25.0 | 1171 | 43 | 1171.0 | 43.0 | 18.1 | Single Age |
| CRM06_97 | 372 | 1.39 | 2.43300 | 0.06600 | 0.20430 | 0.00490 | 0.77076 | 1249.0 | 20.0 | 1197.0 | 26.0 | 1339 | 37 | 1339.0 | 37.0 | 10.6 | Single Age |
| CRM06_98 | 258.6 | 0.84 | 2.74000 | 0.06900 | 0.20450 | 0.00500 | 0.83781 | 1338.0 | 19.0 | 1202.0 | 27.0 | 1556 | 25 | 1556.0 | 25.0 | 22.8 | Single Age |
| CRM06_99 | 95.1 | 1.98 | 0.79900 | 0.03300 | 0.09780 | 0.00250 | 0.20314 | 593.0 | 19.0 | 601.0 | 15.0 | 520 | 100 | 601.0 | 15.0 | 1.3 | Single Age |
| CRM06_100 | 147 | 0.83 | 3.65300 | 0.07200 | 0.26920 | 0.00370 | 0.10791 | 1559.0 | 16.0 | 1539.0 | 19.0 | 1584 | 43 | 1584.0 | 43.0 | 2.8 | Single Age |
| CRM06_101 | 313 | 3.85 | 3.06900 | 0.04200 | 0.24290 | 0.00370 | 0.42023 | 1427.0 | 10.0 | 1401.0 | 19.0 | 1439 | 32 | 1439.0 | 32.0 | 2.6 | Single Age |
| CRP04_1 | 324 | 18.40 | 0.83200 | 0.01800 | 0.09940 | 0.00240 | 0.91673 | 614.0 | 9.6 | 611.0 | 14.0 | 628 | 22 | 611.0 | 14.0 | 0.5 | Single Age |
| CRP04_2 | 229 | 1.20 | 2.13600 | 0.02200 | 0.19600 | 0.00300 | 0.72591 | 1161.1 | 6.8 | 1154.0 | 16.0 | 1180 | 17 | 1180.0 | 17.0 | 2.2 | Single Age |
| CRP04_3 | 165 | 0.91 | 2.94300 | 0.03800 | 0.23350 | 0.00240 | 0.65540 | 1392.0 | 9.7 | 1353.0 | 12.0 | 1444 | 19 | 1444.0 | 19.0 | 6.3 | Single Age |
| CRP04_4 | 767 | 2.62 | 15.99000 | 0.21000 | 0.55350 | 0.00790 | 0.92637 | 2875.0 | 13.0 | 2838.0 | 33.0 | 2895 | 10 | 2895.2 | 9.7 | 2.0 | Single Age |
| CRP04_5 | 502 | 1.80 | 1.21500 | 0.02100 | 0.13340 | 0.00280 | 0.70461 | 806.6 | 9.7 | 807.0 | 16.0 | 795 | 30 | 807.0 | 16.0 | 0.0 | Single Age |
| CRP04_6 | 480 | 0.79 | 1.57300 | 0.02500 | 0.15940 | 0.00290 | 0.62604 | 958.8 | 9.8 | 953.0 | 16.0 | 949 | 28 | 949.0 | 28.0 | 0.4 | Single Age |
| CRP04_7 | 759 | 5.97 | 11.73000 | 0.30000 | 0.45670 | 0.00960 | 0.88139 | 2578.0 | 25.0 | 2422.0 | 43.0 | 2698 | 25 | 2698.0 | 25.0 | 10.2 | Single Age |
| CRP04_8 | 90.3 | 0.57 | 10.14000 | 0.15000 | 0.44340 | 0.00850 | 0.92601 | 2446.0 | 14.0 | 2364.0 | 38.0 | 2508 | 12 | 2508.0 | 12.0 | 5.7 | Single Age |
| CRP04_9 | 66.7 | 0.95 | 6.41300 | 0.09900 | 0.30130 | 0.00570 | 0.82198 | 2038.0 | 13.0 | 1697.0 | 28.0 | 2386 | 17 | 2386.0 | 17.0 | 28.9 | Single Age |
| CRP04_10 | 168.2 | 2.12 | 0.89900 | 0.01500 | 0.10390 | 0.00140 | 0.62626 | 650.7 | 8.1 | 637.0 | 8.3 | 677 | 34 | 637.0 | 8.3 | 2.1 | Single Age |
| CRP04_11 | 101.6 | 0.83 | 0.80200 | 0.01300 | 0.09440 | 0.00120 | 0.36119 | 599.5 | 7.2 | 581.1 | 7.3 | 647 | 34 | 581.1 | 7.3 | 3.1 | Single Age |
| CRP04_12 | 320.1 | 1.72 | 1.65600 | 0.01400 | 0.16830 | 0.00190 | 0.55808 | 991.6 | 5.2 | 1003.0 | 11.0 | 965 | 17 | 965.0 | 17.0 | 3.9 | Single Age |
| CRP04_13 | 442 | 1.80 | 0.84400 | 0.01100 | 0.10110 | 0.00150 | 0.48130 | 621.2 | 6.1 | 621.0 | 8.6 | 644 | 26 | 621.0 | 8.6 | 0.0 | Single Age |
| CRP04_14 | 467 | 1.02 | 1.42100 | 0.02600 | 0.14530 | 0.00310 | 0.73010 | 898.0 | 11.0 | 874.0 | 17.0 | 926 | 29 | 926.0 | 29.0 | 5.6 | Single Age |
| CRP04_15 | 290 | 1.30 | 1.64100 | 0.03000 | 0.16520 | 0.00370 | 0.68686 | 985.0 | 12.0 | 985.0 | 21.0 | 962 | 33 | 962.0 | 33.0 | 2.4 | Single Age |
| CRP04_16 | 190 | 1.11 | 4.59800 | 0.07100 | 0.31410 | 0.00580 | 0.68417 | 1749.0 | 13.0 | 1760.0 | 29.0 | 1726 | 24 | 1726.0 | 24.0 | 2.0 | Single Age |
| CRP04_17 | 184 | 1.69 | 7.65000 | 0.34000 | 0.32300 | 0.02000 | 0.36893 | 2181.0 | 40.0 | 1791.0 | 99.0 | 2541 | 57 | 2541.0 | 57.0 | 29.5 | Single Age |
| CRP04_18 | 325 | 0.72 | 0.80100 | 0.01400 | 0.09570 | 0.00160 | 0.53923 | 596.6 | 7.7 | 588.9 | 9.5 | 616 | 32 | 588.9 | 9.5 | 1.3 | Single Age |
| CRP04_19 | 194 | 3.60 | 2.95000 | 0.19000 | 0.23500 | 0.01100 | 0.97075 | 1380.0 | 51.0 | 1353.0 | 57.0 | 1396 | 57 | 1396.0 | 57.0 | 3.1 | Single Age |
| CRP04_20 | 353 | 9.40 | 1.84900 | 0.02100 | 0.17300 | 0.00270 | 0.72470 | 1062.5 | 7.5 | 1028.0 | 15.0 | 1115 | 18 | 1115.0 | 18.0 | 7.8 | Single Age |
| CRP04_21 | 238 | 1.88 | 9.84000 | 0.13000 | 0.43660 | 0.00620 | 0.87674 | 2420.0 | 12.0 | 2334.0 | 28.0 | 2476 | 14 | 2476.0 | 14.0 | 5.7 | Single Age |
| CRP04_22 | 266.1 | 14.01 | 11.58000 | 0.50000 | 0.48400 | 0.01100 | 0.96168 | 2552.0 | 30.0 | 2542.0 | 47.0 | 2558 | 32 | 2558.0 | 32.0 | 0.6 | Single Age |
| CRP04_23 | 211 | 0.76 | 1.21900 | 0.01500 | 0.13180 | 0.00160 | 0.36423 | 808.8 | 7.0 | 798.2 | 9.1 | 817 | 25 | 798.2 | 9.1 | 1.3 | Single Age |
| CRP04_24 | 534 | 1.27 | 8.59000 | 0.18000 | 0.38230 | 0.00690 | 0.94006 | 2293.0 | 19.0 | 2086.0 | 32.0 | 2473 | 11 | 2473.0 | 11.0 | 15.6 | Single Age |
| CRP04_25 | 886 | 1.97 | 1.84600 | 0.03600 | 0.17170 | 0.00330 | 0.89723 | 1060.0 | 13.0 | 1023.0 | 18.0 | 1134 | 21 | 1134.0 | 21.0 | 9.8 | Single Age |
| CRP04_26 | 505 | 5.92 | 1.56700 | 0.01900 | 0.15900 | 0.00230 | 0.61892 | 956.8 | 7.5 | 951.0 | 13.0 | 962 | 21 | 962.0 | 21.0 | 1.1 | Single Age |

Table 4 Main Central Thrust hanging wall zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CRP04_27 | 359 | 4.40 | 7.75000 | 0.21000 | 0.38800 | 0.01100 | 0.89683 | 2197.0 | 25.0 | 2116.0 | 52.0 | 2234 | 28 | 2234.0 | 28.0 | 5.3 | Single Age |
| CRP04_28 | 298 | 1.28 | 1.92100 | 0.02200 | 0.18120 | 0.00240 | 0.66850 | 1088.8 | 7.5 | 1074.0 | 13.0 | 1093 | 16 | 1093.0 | 16.0 | 1.7 | Single Age |
| CRP04_29 | 286 | 1.06 | 2.42100 | 0.02800 | 0.20940 | 0.00230 | 0.75048 | 1248.2 | 8.5 | 1225.0 | 12.0 | 1273 | 20 | 1273.0 | 20.0 | 3.8 | Single Age |
| CRP04_30 | 308 | 0.79 | 1.89100 | 0.02800 | 0.18140 | 0.00280 | 0.52673 | 1077.1 | 9.7 | 1075.0 | 15.0 | 1060 | 25 | 1060.0 | 25.0 | 1.4 | Single Age |
| CRP04_31 | 387 | 3.01 | 4.08000 | 0.64000 | 0.22100 | 0.02500 | 0.99701 | 1450.0 | 140.0 | 1260.0 | 130.0 | 1720 | 170 | 1720.0 | 170.0 | 26.7 | Single Age |
| CRP04_32 | 681 | 3.80 | 1.67000 | 0.04000 | 0.16460 | 0.00460 | 0.74477 | 995.0 | 15.0 | 981.0 | 26.0 | 985 | 38 | 985.0 | 38.0 | 0.4 | Single Age |
| CRP04_33 | 274 | 3.10 | 0.89800 | 0.01500 | 0.10500 | 0.00190 | 0.64993 | 650.1 | 7.8 | 645.0 | 11.0 | 647 | 30 | 645.0 | 11.0 | 0.8 | Single Age |
| CRP04_34 | 423 | 1.09 | 11.53000 | 0.11000 | 0.48740 | 0.00690 | 0.87713 | 2566.2 | 9.2 | 2558.0 | 30.0 | 2571 | 10 | 2571.0 | 9.5 | 0.5 | Single Age |
| CRP04_35 | 441 | 1.33 | 1.56000 | 0.08300 | 0.14250 | 0.00440 | 0.53129 | 946.0 | 32.0 | 858.0 | 25.0 | 1127 | 80 | 1127.0 | 80.0 | 23.9 | Single Age |
| CRP04_36 | 572.9 | 5.46 | 1.77600 | 0.02000 | 0.17060 | 0.00220 | 0.76469 | 1037.2 | 7.6 | 1015.0 | 12.0 | 1057 | 20 | 1057.0 | 20.0 | 4.0 | Single Age |
| CRP04_37 | 484 | 23.30 | 1.34000 | 0.03200 | 0.14080 | 0.00310 | 0.65738 | 862.0 | 14.0 | 849.0 | 18.0 | 895 | 30 | 849.0 | 18.0 | 1.5 | Single Age |
| CRP04_38 | 182 | 0.49 | 2.20900 | 0.03700 | 0.20170 | 0.00380 | 0.30468 | 1182.0 | 12.0 | 1184.0 | 20.0 | 1157 | 31 | 1157.0 | 31.0 | 2.3 | Single Age |
| CRP04_39 | 489 | 2.52 | 1.83700 | 0.01500 | 0.17470 | 0.00190 | 0.46440 | 1059.3 | 5.4 | 1038.0 | 10.0 | 1075 | 18 | 1075.0 | 18.0 | 3.4 | Single Age |
| CRP04_40 | 248 | 0.73 | 10.83000 | 0.29000 | 0.46300 | 0.01000 | 0.88615 | 2507.0 | 25.0 | 2456.0 | 45.0 | 2531 | 23 | 2531.0 | 23.0 | 3.0 | Single Age |
| CRP04_41 | 109 | 0.21 | 9.75000 | 0.24000 | 0.43900 | 0.00910 | 0.93420 | 2407.0 | 23.0 | 2351.0 | 42.0 | 2454 | 27 | 2454.0 | 27.0 | 4.2 | Single Age |
| CRP04_42 | 12.6 | 0.87 | 0.88800 | 0.04600 | 0.10840 | 0.00400 | 0.31179 | 643.0 | 25.0 | 663.0 | 23.0 | 540 | 100 | 663.0 | 23.0 | 3.1 | Single Age |
| CRP04_43 | 628 | 2.55 | 1.60500 | 0.02200 | 0.16270 | 0.00290 | 0.72570 | 971.5 | 8.4 | 972.0 | 16.0 | 954 | 20 | 954.0 | 20.0 | 1.9 | Single Age |
| CRP04_44 | 243 | 1.30 | 2.18300 | 0.04700 | 0.19770 | 0.00410 | 0.69809 | 1174.0 | 15.0 | 1165.0 | 23.0 | 1192 | 34 | 1192.0 | 34.0 | 2.3 | Single Age |
| CRP04_45 | 1365 | 3.65 | 1.80400 | 0.03900 | 0.17180 | 0.00440 | 0.88464 | 1047.0 | 15.0 | 1021.0 | 24.0 | 1113 | 24 | 1113.0 | 24.0 | 8.3 | Single Age |
| CRP04_46 | 363 | 1.14 | 2.26000 | 0.04400 | 0.20540 | 0.00470 | 0.69678 | 1200.0 | 13.0 | 1207.0 | 24.0 | 1178 | 29 | 1178.0 | 29.0 | 2.5 | Single Age |
| CRP04_47 | 334 | 1.67 | 3.00800 | 0.07800 | 0.23800 | 0.00640 | 0.73703 | 1411.0 | 19.0 | 1375.0 | 33.0 | 1445 | 41 | 1445.0 | 41.0 | 4.8 | Single Age |
| CRP04_48 | 341 | 5.82 | 1.59100 | 0.04100 | 0.15830 | 0.00360 | 0.82245 | 967.0 | 16.0 | 947.0 | 20.0 | 1000 | 30 | 1000.0 | 30.0 | 5.3 | Single Age |
| CRP04_49 | 200 | 1.29 | 1.68800 | 0.03700 | 0.16760 | 0.00370 | 0.73287 | 1002.0 | 14.0 | 998.0 | 20.0 | 1008 | 36 | 1008.0 | 36.0 | 1.0 | Single Age |
| CRP04_50 | 124.3 | 1.34 | 5.22000 | 0.19000 | 0.26850 | 0.00830 | 0.92635 | 1851.0 | 30.0 | 1531.0 | 42.0 | 2217 | 26 | DISC | DISC | 30.9 | Single Age |
| CRP04_51 | 761 | 1.22 | 1.25100 | 0.02500 | 0.13490 | 0.00290 | 0.64675 | 823.0 | 11.0 | 815.0 | 17.0 | 825 | 36 | 815.0 | 17.0 | 1.0 | Single Age |
| CRP04_52 | 164.4 | 1.38 | 9.76000 | 0.13000 | 0.43900 | 0.00720 | 0.90834 | 2411.0 | 12.0 | 2345.0 | 32.0 | 2466 | 15 | 2466.0 | 15.0 | 4.9 | Single Age |
| CRP04_53 | 465 | 57.60 | 2.58100 | 0.03600 | 0.21760 | 0.00350 | 0.74263 | 1294.0 | 10.0 | 1269.0 | 18.0 | 1315 | 20 | 1315.0 | 20.0 | 3.5 | Single Age |
| CRP04_54 | 136 | 1.47 | 2.57000 | 0.14000 | 0.21600 | 0.00850 | 0.88409 | 1284.0 | 41.0 | 1258.0 | 45.0 | 1324 | 61 | 1324.0 | 61.0 | 5.0 | Single Age |
| CRP04_55 | 262 | 21.70 | 12.30000 | 0.26000 | 0.50300 | 0.01100 | 0.94772 | 2624.0 | 20.0 | 2625.0 | 48.0 | 2635 | 13 | 2635.0 | 13.0 | 0.4 | Single Age |
| CRP04_56 | 203 | 0.31 | 0.75400 | 0.01500 | 0.09240 | 0.00220 | 0.59217 | 571.0 | 8.9 | 569.0 | 13.0 | 573 | 43 | 569.0 | 13.0 | 0.4 | Single Age |
| CRP04_57 | 106.9 | 0.32 | 1.66200 | 0.03600 | 0.16760 | 0.00330 | 0.05288 | 992.0 | 13.0 | 998.0 | 18.0 | 967 | 41 | 967.0 | 41.0 | 3.2 | Single Age |
| CRP04_58 | 100 | 2.99 | 1.83200 | 0.02800 | 0.17180 | 0.00280 | 0.20434 | 1057.0 | 10.0 | 1024.0 | 15.0 | 1126 | 33 | 1126.0 | 33.0 | 9.1 | Single Age |
| CRP04_59 | 1530 | 7.05 | 9.27000 | 0.29000 | 0.39900 | 0.01100 | 0.66133 | 2358.0 | 29.0 | 2159.0 | 51.0 | 2533 | 29 | 2533.0 | 29.0 | 14.8 | Single Age |
| CRP04_60 | 387 | 3.78 | 1.74500 | 0.01600 | 0.16980 | 0.00170 | 0.36979 | 1025.0 | 5.9 | 1010.8 | 9.6 | 1046 | 20 | 1046.0 | 20.0 | 3.4 | Single Age |
| CRP04_61 | 611 | 1.51 | 2.33600 | 0.04900 | 0.20870 | 0.00440 | 0.89980 | 1223.0 | 15.0 | 1221.0 | 24.0 | 1225 | 19 | 1225.0 | 19.0 | 0.3 | Single Age |
| CRP04_62 | 870 | 9.10 | 1.74900 | 0.07000 | 0.16970 | 0.00620 | 0.93861 | 1020.0 | 26.0 | 1009.0 | 34.0 | 1033 | 28 | 1033.0 | 28.0 | 2.3 | Single Age |
| CRP04_63 | 483 | 0.95 | 5.61000 | 0.14000 | 0.34800 | 0.01000 | 0.82480 | 1918.0 | 22.0 | 1919.0 | 48.0 | 1899 | 29 | 1899.0 | 29.0 | 1.1 | Single Age |
| CRP04_64 | 141.1 | 0.49 | 1.69000 | 0.21000 | 0.14010 | 0.00420 | 0.72540 | 955.0 | 58.0 | 845.0 | 24.0 | 1180 | 140 | DISC | DISC | 11.5 | Single Age |
| CRP04_65 | 1071 | 6.05 | 9.37000 | 0.19000 | 0.41000 | 0.01000 | 0.76755 | 2374.0 | 18.0 | 2210.0 | 46.0 | 2498 | 28 | 2498.0 | 28.0 | 11.5 | Single Age |
| CRP04_66 | 162 | 1.51 | 1.49700 | 0.03600 | 0.15460 | 0.00440 | 0.59743 | 933.0 | 15.0 | 926.0 | 24.0 | 911 | 51 | 911.0 | 51.0 | 1.6 | Single Age |
| CRP04_67 | 158 | 1.52 | 4.75400 | 0.05500 | 0.31810 | 0.00460 | 0.59807 | 1777.1 | 9.6 | 1780.0 | 23.0 | 1757 | 20 | 1757.0 | 20.0 | 1.3 | Single Age |
| CRP04_68 | 78.3 | 0.90 | 10.26000 | 0.20000 | 0.45300 | 0.01100 | 0.88730 | 2455.0 | 19.0 | 2405.0 | 49.0 | 2502 | 29 | 2502.0 | 29.0 | 3.9 | Single Age |

Table 4 Main Central Thrust hanging wall zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CRP04_69 | 183 | 1.50 | 4.31000 | 0.12000 | 0.28910 | 0.00970 | 0.71323 | 1690.0 | 22.0 | 1633.0 | 49.0 | 1717 | 45 | 1717.0 | 45.0 | 4.9 | Single Age |
| CRP04_70 | 311 | 1.16 | 1.57700 | 0.03100 | 0.15730 | 0.00320 | 0.67701 | 960.0 | 12.0 | 941.0 | 18.0 | 979 | 30 | 979.0 | 30.0 | 3.9 | Single Age |
| CRP04_71 | 1585 | 21.46 | 9.05000 | 0.32000 | 0.40900 | 0.01700 | 0.74130 | 2343.0 | 33.0 | 2205.0 | 75.0 | 2443 | 48 | 2443.0 | 48.0 | 9.7 | Single Age |
| CRP04_72 | 620 | 1.38 | 1.49100 | 0.02500 | 0.15280 | 0.00320 | 0.67220 | 926.0 | 10.0 | 916.0 | 18.0 | 960 | 31 | 960.0 | 31.0 | 4.6 | Single Age |
| CRP04_73 | 103.9 | 1.21 | 1.42800 | 0.05300 | 0.14350 | 0.00500 | 0.75662 | 896.0 | 22.0 | 863.0 | 28.0 | 949 | 50 | 949.0 | 50.0 | 9.1 | Single Age |
| CRP04_74 | 191 | 1.10 | 1.28300 | 0.02800 | 0.13950 | 0.00350 | 0.65620 | 838.0 | 12.0 | 841.0 | 20.0 | 805 | 39 | 841.0 | 20.0 | 0.4 | Single Age |
| CRP04_75 | 244 | 2.30 | 1.63500 | 0.02300 | 0.16030 | 0.00240 | 0.37302 | 984.1 | 8.8 | 958.0 | 13.0 | 1011 | 29 | 1011.0 | 29.0 | 5.2 | Single Age |
| CRP04_76 | 424 | 0.99 | 4.10100 | 0.08200 | 0.29180 | 0.00730 | 0.77967 | 1652.0 | 16.0 | 1648.0 | 36.0 | 1635 | 31 | 1635.0 | 31.0 | 0.8 | Single Age |
| CRP04_77 | 645 | 3.03 | 1.83300 | 0.03000 | 0.17550 | 0.00340 | 0.44301 | 1056.0 | 11.0 | 1042.0 | 19.0 | 1068 | 31 | 1068.0 | 31.0 | 2.4 | Single Age |
| CRP04_78 | 650 | 2.01 | 11.10000 | 0.16000 | 0.47730 | 0.00870 | 0.84135 | 2532.0 | 14.0 | 2514.0 | 38.0 | 2530 | 18 | 2530.0 | 18.0 | 0.6 | Single Age |
| CRP04_79 | 166 | 1.74 | 9.49000 | 0.31000 | 0.41200 | 0.01300 | 0.71708 | 2382.0 | 29.0 | 2226.0 | 59.0 | 2464 | 39 | 2464.0 | 39.0 | 9.7 | Single Age |
| CRP04_80 | 809 | 6.43 | 11.01000 | 0.29000 | 0.48300 | 0.01100 | 0.89401 | 2518.0 | 24.0 | 2535.0 | 48.0 | 2515 | 25 | 2515.0 | 25.0 | 0.8 | Single Age |
| CRP04_81 | 462 | 3.79 | 1.65600 | 0.02800 | 0.16590 | 0.00300 | 0.59156 | 991.0 | 11.0 | 989.0 | 17.0 | 985 | 30 | 985.0 | 30.0 | 0.4 | Single Age |
| CRP04_82 | 282 | 4.36 | 0.77800 | 0.01300 | 0.09280 | 0.00170 | 0.62798 | 584.0 | 7.2 | 572.0 | 10.0 | 611 | 36 | 572.0 | 10.0 | 2.1 | Single Age |
| CRP04_83 | 98 | 0.52 | 2.90000 | 0.10000 | 0.23420 | 0.00900 | 0.66304 | 1376.0 | 27.0 | 1353.0 | 47.0 | 1402 | 49 | 1402.0 | 49.0 | 3.5 | Single Age |
| CRP04_84 | 38.7 | 1.09 | 15.29000 | 0.95000 | 0.53000 | 0.02000 | 0.95583 | 2798.0 | 73.0 | 2732.0 | 84.0 | 2930 | 42 | 2930.0 | 42.0 | 6.8 | Single Age |
| CRP04_85 | 227 | 1.89 | 4.46000 | 0.12000 | 0.30230 | 0.00730 | 0.94387 | 1718.0 | 25.0 | 1701.0 | 36.0 | 1746 | 25 | 1746.0 | 25.0 | 2.6 | Single Age |
| CRP04_86 | 1475 | 10.23 | 1.73200 | 0.04600 | 0.16470 | 0.00440 | 0.81740 | 1022.0 | 17.0 | 990.0 | 26.0 | 1025 | 37 | 1025.0 | 37.0 | 3.4 | Single Age |
| CRP04_87 | 719 | 3.61 | 1.65800 | 0.03800 | 0.16480 | 0.00370 | 0.78498 | 991.0 | 14.0 | 986.0 | 20.0 | 1025 | 32 | 1025.0 | 32.0 | 3.8 | Single Age |
| CRP04_88 | 317 | 5.00 | 5.46000 | 0.33000 | 0.32800 | 0.01700 | 0.93423 | 1866.0 | 56.0 | 1819.0 | 82.0 | 1916 | 48 | 1916.0 | 48.0 | 5.1 | Single Age |
| CRP04_89 | 320 | 0.98 | 10.70000 | 0.26000 | 0.47400 | 0.01200 | 0.84609 | 2495.0 | 23.0 | 2506.0 | 56.0 | 2469 | 26 | 2469.0 | 26.0 | 1.5 | Single Age |
| CRP04_90 | 387 | 3.85 | 11.30000 | 1.90000 | 0.37300 | 0.02500 | 0.95177 | 2420.0 | 110.0 | 2030.0 | 110.0 | 2780 | 100 | 2780.0 | 100.0 | 27.0 | Single Age |
| CRP04_91 | 870 | 1.37 | 1.26700 | 0.01800 | 0.13470 | 0.00200 | 0.97355 | 830.5 | 8.3 | 815.0 | 11.0 | 877 | 25 | 815.0 | 11.0 | 1.9 | Single Age |
| CRP04_92 | 503.7 | 3.23 | 1.56600 | 0.01800 | 0.15880 | 0.00240 | 0.71655 | 958.1 | 7.3 | 950.0 | 13.0 | 944 | 18 | 944.0 | 18.0 | 0.6 | Single Age |
| CRP04_93 | 775 | 0.96 | 1.17700 | 0.02100 | 0.12800 | 0.00230 | 0.81070 | 789.2 | 9.9 | 776.0 | 13.0 | 798 | 31 | 776.0 | 13.0 | 1.7 | Single Age |
| CRP04_94 | 72.3 | 1.35 | 2.42000 | 0.10000 | 0.20260 | 0.00810 | 0.85421 | 1244.0 | 32.0 | 1187.0 | 44.0 | 1328 | 47 | 1328.0 | 47.0 | 10.6 | Single Age |
| CRP04_95 | 1050 | 9.30 | 17.80000 | 2.20000 | 0.43100 | 0.04100 | 0.98781 | 2860.0 | 160.0 | 2280.0 | 190.0 | 3300 | 110 | DISC | DISC | 30.9 | Single Age |
| CRP02_1 | 947 | 0.96 | 3.76500 | 0.04000 | 0.27610 | 0.00430 | 0.84419 | 1585.6 | 8.8 | 1571.0 | 22.0 | 1600 | 13 | 1600.0 | 13.0 | 1.8 | Single Age |
| CRP02_2 | 241 | 0.51 | 1.15100 | 0.01200 | 0.12600 | 0.00130 | 0.31844 | 777.6 | 5.5 | 765.2 | 7.2 | 817 | 24 | 765.2 | 7.2 | 1.6 | Single Age |
| CRP02_3 | 49 | 3.87 | 2.06700 | 0.04500 | 0.19400 | 0.00460 | 0.67703 | 1138.0 | 15.0 | 1142.0 | 25.0 | 1128 | 35 | 1128.0 | 35.0 | 1.2 | Single Age |
| CRP02_4 | 497 | 2.72 | 0.83900 | 0.03900 | 0.09600 | 0.00230 | 0.95470 | 615.0 | 20.0 | 590.0 | 13.0 | 676 | 47 | 590.0 | 13.0 | 4.1 | Single Age |
| CRP02_5 | 505 | 2.69 | 1.11800 | 0.07300 | 0.10760 | 0.00280 | 0.73241 | 759.0 | 35.0 | 658.0 | 16.0 | 979 | 81 | DISC | DISC | 13.3 | Single Age |
| CRP02_6 | 69 | 0.90 | 1.74200 | 0.02700 | 0.16690 | 0.00210 | 0.37930 | 1023.0 | 10.0 | 995.0 | 12.0 | 1092 | 32 | 1092.0 | 32.0 | 8.9 | Single Age |
| CRP02_7 | 586 | 12.10 | 2.24300 | 0.06600 | 0.19930 | 0.00570 | 0.89768 | 1191.0 | 21.0 | 1170.0 | 31.0 | 1253 | 29 | 1253.0 | 29.0 | 6.6 | Single Age |
| CRP02_8 | 163 | 1.12 | 2.59700 | 0.03500 | 0.21800 | 0.00390 | 0.53629 | 1299.0 | 9.7 | 1271.0 | 21.0 | 1359 | 28 | 1359.0 | 28.0 | 6.5 | Single Age |
| CRP02_9 | 589 | 47.80 | 1.50300 | 0.01700 | 0.15440 | 0.00230 | 0.69980 | 932.0 | 7.2 | 925.0 | 13.0 | 944 | 20 | 944.0 | 20.0 | 2.0 | Single Age |
| CRP02_10 | 254 | 3.00 | 3.73000 | 0.13000 | 0.27670 | 0.00850 | 0.97318 | 1569.0 | 33.0 | 1572.0 | 44.0 | 1575 | 31 | 1575.0 | 31.0 | 0.2 | Single Age |
| CRP02_11 | 424 | 3.70 | 1.43000 | 0.05200 | 0.15120 | 0.00500 | 0.93029 | 897.0 | 22.0 | 907.0 | 28.0 | 889 | 25 | 889.0 | 25.0 | 2.0 | Single Age |
| CRP02_12 | 500 | 5.82 | 2.21000 | 0.24000 | 0.18100 | 0.01000 | 0.98092 | 1140.0 | 67.0 | 1069.0 | 56.0 | 1286 | 93 | 1286.0 | 93.0 | 16.9 | Single Age |
| CRP02_13 | 590 | 1.37 | 1.88100 | 0.03400 | 0.18130 | 0.00330 | 0.76440 | 1073.0 | 12.0 | 1074.0 | 18.0 | 1073 | 27 | 1073.0 | 27.0 | 0.1 | Single Age |
| CRP02_14 | 536 | 1.02 | 1.23300 | 0.01400 | 0.13400 | 0.00210 | 0.82430 | 815.5 | 6.4 | 811.0 | 12.0 | 840 | 15 | 811.0 | 12.0 | 0.6 | Single Age |
| CRP02_15 | 241 | 1.62 | 1.79700 | 0.03100 | 0.17840 | 0.00380 | 0.77280 | 1043.0 | 11.0 | 1058.0 | 21.0 | 1015 | 24 | 1015.0 | 24.0 | 4.2 | Single Age |

Table 4 Main Central Thrust hanging wall zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CRP02_16 | 754 | 13.99 | 2.28000 | 0.20000 | 0.18400 | 0.01300 | 0.99619 | 1185.0 | 69.0 | 1079.0 | 74.0 | 1441 | 43 | 1441.0 | 43.0 | 25.1 | Single Age |
| CRP02_17 | 422 | 1.57 | 1.61700 | 0.02400 | 0.16320 | 0.00270 | 0.69469 | 977.6 | 9.2 | 974.0 | 15.0 | 969 | 25 | 969.0 | 25.0 | 0.5 | Single Age |
| CRP02_18 | 57.5 | 0.36 | 10.30000 | 0.11000 | 0.46200 | 0.00590 | 0.70399 | 2464.7 | 9.9 | 2451.0 | 27.0 | 2484 | 14 | 2484.0 | 14.0 | 1.3 | Single Age |
| CRP02_19 | 261 | 0.74 | 3.75700 | 0.04500 | 0.27790 | 0.00370 | 0.89704 | 1582.8 | 9.6 | 1580.0 | 19.0 | 1594 | 16 | 1594.0 | 16.0 | 0.9 | Single Age |
| CRP02_20 | 367 | 1.03 | 10.18000 | 0.10000 | 0.45860 | 0.00630 | 0.85773 | 2451.8 | 9.4 | 2432.0 | 28.0 | 2470 | 11 | 2470.0 | 11.0 | 1.5 | Single Age |
| CRP02_21 | 361 | 0.68 | 9.82000 | 0.17000 | 0.43170 | 0.00930 | 0.76605 | 2415.0 | 16.0 | 2311.0 | 42.0 | 2476 | 26 | 2476.0 | 26.0 | 6.7 | Single Age |
| CRP02_22 | 184 | 2.16 | 1.62000 | 0.17000 | 0.14500 | 0.01100 | 0.98244 | 935.0 | 67.0 | 868.0 | 60.0 | 1128 | 88 | 1128.0 | 88.0 | 23.0 | Single Age |
| CRP02_23 | 304 | 3.19 | 1.60800 | 0.01700 | 0.16210 | 0.00190 | 0.60203 | 972.8 | 6.5 | 968.0 | 11.0 | 990 | 19 | 990.0 | 19.0 | 2.2 | Single Age |
| CRP02_24 | 624 | 2.36 | 1.49600 | 0.01600 | 0.15390 | 0.00270 | 0.81388 | 929.2 | 6.4 | 922.0 | 15.0 | 934 | 18 | 934.0 | 18.0 | 1.3 | Single Age |
| CRP02_25 | 767 | 1.74 | 29.10000 | 0.61000 | 0.67400 | 0.01400 | 0.96939 | 3446.0 | 25.0 | 3318.0 | 56.0 | 3539 | 14 | 3539.0 | 14.0 | 6.2 | Single Age |
| CRP02_26 | 172 | 2.37 | 5.07000 | 0.11000 | 0.32820 | 0.00730 | 0.93184 | 1827.0 | 20.0 | 1834.0 | 34.0 | 1822 | 23 | 1822.0 | 23.0 | 0.7 | Single Age |
| CRP02_27 | 123 | 0.65 | 1.52800 | 0.02900 | 0.15730 | 0.00290 | 0.73994 | 941.0 | 12.0 | 942.0 | 16.0 | 960 | 26 | 960.0 | 26.0 | 1.9 | Single Age |
| CRP02_28 | 130 | 1.04 | 2.37300 | 0.05700 | 0.20000 | 0.00380 | 0.73249 | 1237.0 | 16.0 | 1175.0 | 21.0 | 1317 | 26 | 1317.0 | 26.0 | 10.8 | Single Age |
| CRP02_29 | 718 | 3.38 | 1.44000 | 0.02300 | 0.14470 | 0.00280 | 0.89391 | 904.9 | 9.7 | 871.0 | 16.0 | 975 | 13 | 975.0 | 13.0 | 10.7 | Single Age |
| CRP02_30 | 890 | 0.83 | 1.93900 | 0.02800 | 0.18090 | 0.00320 | 0.92043 | 1093.7 | 9.6 | 1071.0 | 17.0 | 1135 | 13 | 1135.0 | 13.0 | 5.6 | Single Age |
| CRP02_31 | 638 | 6.40 | 9.50000 | 0.44000 | 0.41500 | 0.01900 | 0.98698 | 2385.0 | 43.0 | 2237.0 | 88.0 | 2513 | 14 | 2513.0 | 14.0 | 11.0 | Single Age |
| CRP02_32 | 338 | 1.57 | 10.56000 | 0.11000 | 0.46710 | 0.00710 | 0.72014 | 2486.0 | 10.0 | 2469.0 | 32.0 | 2495 | 16 | 2495.0 | 16.0 | 1.0 | Single Age |
| CRP02_33 | 1000 | 4.59 | 1.51500 | 0.01500 | 0.15520 | 0.00250 | 0.82824 | 937.7 | 6.2 | 930.0 | 14.0 | 958 | 14 | 958.0 | 14.0 | 2.9 | Single Age |
| CRP02_34 | 647 | 3.50 | 1.90500 | 0.02000 | 0.18200 | 0.00240 | 0.72302 | 1083.5 | 7.0 | 1078.0 | 13.0 | 1087 | 14 | 1087.0 | 14.0 | 0.8 | Single Age |
| CRP02_35 | 564 | 1.04 | 1.91000 | 0.03300 | 0.18140 | 0.00390 | 0.78222 | 1085.0 | 12.0 | 1074.0 | 21.0 | 1089 | 20 | 1089.0 | 20.0 | 1.4 | Single Age |
| CRP02_36 | 183 | 0.58 | 13.25000 | 0.18000 | 0.51980 | 0.00930 | 0.90852 | 2696.0 | 13.0 | 2696.0 | 40.0 | 2685 | 14 | 2685.0 | 14.0 | 0.4 | Single Age |
| CRP02_37 | 477 | 1.68 | 5.02200 | 0.06200 | 0.32150 | 0.00500 | 0.76169 | 1823.0 | 10.0 | 1796.0 | 24.0 | 1851 | 18 | 1851.0 | 18.0 | 3.0 | Single Age |
| CRP02_38 | 632 | 11.20 | 1.61700 | 0.02100 | 0.16300 | 0.00290 | 0.61316 | 977.2 | 8.0 | 975.0 | 16.0 | 986 | 26 | 986.0 | 26.0 | 1.1 | Single Age |
| CRP02_39 | 185 | 0.89 | 1.93000 | 0.03100 | 0.18360 | 0.00300 | 0.53532 | 1092.0 | 11.0 | 1086.0 | 16.0 | 1102 | 30 | 1102.0 | 30.0 | 1.5 | Single Age |
| CRP02_40 | 63.6 | 0.57 | 1.19700 | 0.02000 | 0.13110 | 0.00220 | 0.28659 | 799.7 | 9.3 | 794.0 | 13.0 | 809 | 45 | 794.0 | 13.0 | 0.7 | Single Age |
| CRP02_41 | 190 | 0.59 | 0.74600 | 0.01300 | 0.09120 | 0.00160 | 0.19596 | 565.5 | 7.3 | 562.2 | 9.5 | 579 | 43 | 562.2 | 9.5 | 0.6 | Single Age |
| CRP02_42 | 989 | 28.30 | 1.51500 | 0.02100 | 0.15560 | 0.00270 | 0.89593 | 935.9 | 8.5 | 932.0 | 15.0 | 947 | 14 | 947.0 | 14.0 | 1.6 | Single Age |
| CRP02_43 | 90.8 | 0.67 | 1.62600 | 0.02600 | 0.16170 | 0.00330 | 0.46040 | 980.0 | 10.0 | 966.0 | 18.0 | 1002 | 36 | 1002.0 | 36.0 | 3.6 | Single Age |
| CRP02_44 | 206 | 1.38 | 1.57700 | 0.02600 | 0.15890 | 0.00300 | 0.73334 | 960.0 | 10.0 | 950.0 | 16.0 | 959 | 22 | 959.0 | 22.0 | 0.9 | Single Age |
| CRP02_45 | 737 | 2.42 | 1.70600 | 0.02200 | 0.16730 | 0.00280 | 0.73773 | 1010.2 | 8.2 | 997.0 | 16.0 | 1011 | 23 | 1011.0 | 23.0 | 1.4 | Single Age |
| CRP02_46 | 630 | 8.90 | 1.55000 | 0.04100 | 0.15790 | 0.00410 | 0.88491 | 950.0 | 16.0 | 944.0 | 23.0 | 961 | 24 | 961.0 | 24.0 | 1.8 | Single Age |
| CRP02_47 | 73 | 3.14 | 9.39000 | 0.11000 | 0.42320 | 0.00620 | 0.62205 | 2375.0 | 11.0 | 2274.0 | 28.0 | 2453 | 19 | 2453.0 | 19.0 | 7.3 | Single Age |
| CRP02_48 | 526 | 1.75 | 1.74900 | 0.02200 | 0.17440 | 0.00300 | 0.80859 | 1026.0 | 8.2 | 1036.0 | 17.0 | 999 | 16 | 999.0 | 16.0 | 3.7 | Single Age |
| CRP02_49 | 116 | 0.86 | 1.90200 | 0.02400 | 0.18230 | 0.00250 | 0.46001 | 1081.0 | 8.4 | 1079.0 | 14.0 | 1080 | 26 | 1080.0 | 26.0 | 0.1 | Single Age |
| CRP02_50 | 800 | 13.80 | 3.09000 | 0.28000 | 0.20660 | 0.00990 | 0.96612 | 1392.0 | 71.0 | 1206.0 | 52.0 | 1660 | 100 | 1660.0 | 100.0 | 27.3 | Single Age |
| CRP02_51 | 330 | 3.50 | 2.39000 | 0.20000 | 0.20400 | 0.01300 | 0.98010 | 1201.0 | 61.0 | 1191.0 | 67.0 | 1235 | 65 | 1235.0 | 65.0 | 3.6 | Single Age |
| CRP02_52 | 940 | 2.31 | 0.91300 | 0.01300 | 0.10720 | 0.00220 | 0.85625 | 660.0 | 6.6 | 658.0 | 12.0 | 667 | 18 | 658.0 | 12.0 | 0.3 | Single Age |
| CRP02_53 | 588 | 0.76 | 1.85900 | 0.02200 | 0.17650 | 0.00270 | 0.84664 | 1066.2 | 7.7 | 1048.0 | 15.0 | 1102 | 15 | 1102.0 | 15.0 | 4.9 | Single Age |
| CRP02_54 | 76.1 | 1.00 | 2.22200 | 0.03400 | 0.20140 | 0.00320 | 0.51312 | 1187.0 | 11.0 | 1182.0 | 17.0 | 1184 | 29 | 1184.0 | 29.0 | 0.2 | Single Age |
| CRP02_55 | 705 | 2.33 | 4.27700 | 0.05300 | 0.29660 | 0.00570 | 0.70493 | 1688.0 | 10.0 | 1673.0 | 28.0 | 1688 | 24 | 1688.0 | 24.0 | 0.9 | Single Age |
| CRP02_56 | 32.5 | 0.73 | 11.05000 | 0.42000 | 0.46200 | 0.01300 | 0.83441 | 2515.0 | 35.0 | 2458.0 | 58.0 | 2545 | 37 | 2545.0 | 37.0 | 3.4 | Single Age |
| CRP02_57 | 870 | 7.40 | 15.40000 | 1.10000 | 0.51300 | 0.02200 | 0.97565 | 2814.0 | 72.0 | 2666.0 | 95.0 | 2931 | 64 | 2931.0 | 64.0 | 9.0 | Single Age |

Table 4 Main Central Thrust hanging wall zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CRP02_58 | 354 | 0.60 | 1.32500 | 0.06300 | 0.13150 | 0.00370 | 0.59279 | 844.0 | 21.0 | 796.0 | 21.0 | 970 | 44 | 796.0 | 21.0 | 5.7 | Single Age |
| CRP02_59 | 333.5 | 164.40 | 0.73570 | 0.00810 | 0.09060 | 0.00120 | 0.49120 | 560.4 | 4.8 | 560.0 | 7.2 | 566 | 27 | 560.0 | 7.2 | 0.1 | Single Age |
| CRP02_60 | 554 | 12.70 | 1.89100 | 0.08700 | 0.18210 | 0.00710 | 0.97277 | 1068.0 | 30.0 | 1076.0 | 39.0 | 1044 | 27 | 1044.0 | 27.0 | 3.1 | Single Age |
| CRP02_61 | 151 | 1.14 | 2.94300 | 0.04400 | 0.23430 | 0.00430 | 0.83440 | 1388.0 | 13.0 | 1356.0 | 23.0 | 1420 | 22 | 1420.0 | 22.0 | 4.5 | Single Age |
| CRP02_62 | 60.3 | 0.14 | 10.33000 | 0.15000 | 0.46740 | 0.00910 | 0.82958 | 2465.0 | 14.0 | 2470.0 | 40.0 | 2471 | 17 | 2471.0 | 17.0 | 0.0 | Single Age |
| CRP02_63 | 830 | 3.48 | 1.59100 | 0.04700 | 0.15790 | 0.00410 | 0.61390 | 964.0 | 17.0 | 945.0 | 23.0 | 972 | 26 | 972.0 | 26.0 | 2.8 | Single Age |
| CRP02_64 | 326 | 2.76 | 2.05600 | 0.02200 | 0.18690 | 0.00250 | 0.51934 | 1134.8 | 7.6 | 1106.0 | 14.0 | 1189 | 22 | 1189.0 | 22.0 | 7.0 | Single Age |
| CRP02_65 | 126.5 | 1.68 | 6.43000 | 0.14000 | 0.29920 | 0.00660 | 0.90448 | 2034.0 | 18.0 | 1686.0 | 32.0 | 2408 | 24 | 2408.0 | 24.0 | 30.0 | Single Age |
| CRP02_66 | 887 | 0.55 | 1.85700 | 0.02500 | 0.17540 | 0.00310 | 0.70340 | 1066.5 | 8.8 | 1041.0 | 17.0 | 1112 | 16 | 1112.0 | 16.0 | 6.4 | Single Age |
| CRP02_67 | 112.7 | 0.48 | 1.43900 | 0.02300 | 0.14880 | 0.00230 | 0.75217 | 905.6 | 9.5 | 894.0 | 13.0 | 946 | 24 | 946.0 | 24.0 | 5.5 | Single Age |
| CRP02_68 | 223.7 | 1.55 | 1.56800 | 0.02300 | 0.15970 | 0.00280 | 0.86157 | 957.0 | 9.2 | 957.0 | 15.0 | 946 | 16 | 946.0 | 16.0 | 1.2 | Single Age |
| CRP02_69 | 689 | 6.54 | 10.13000 | 0.15000 | 0.44280 | 0.00720 | 0.82799 | 2448.0 | 14.0 | 2362.0 | 32.0 | 2514 | 19 | 2514.0 | 19.0 | 6.0 | Single Age |
| CRP02_70 | 302 | 1.07 | 2.85200 | 0.03900 | 0.23450 | 0.00440 | 0.59756 | 1368.0 | 10.0 | 1357.0 | 23.0 | 1386 | 26 | 1386.0 | 26.0 | 2.1 | Single Age |
| CRP02_71 | 267 | 4.34 | 1.39500 | 0.02000 | 0.14640 | 0.00230 | 0.76490 | 886.1 | 8.4 | 880.0 | 13.0 | 894 | 22 | 894.0 | 22.0 | 1.6 | Single Age |
| CRP02_72 | 72.7 | 0.45 | 9.26000 | 0.13000 | 0.40760 | 0.00830 | 0.67177 | 2364.0 | 13.0 | 2202.0 | 38.0 | 2484 | 26 | 2484.0 | 26.0 | 11.4 | Single Age |
| CRP02_73 | 139 | 3.16 | 1.68300 | 0.02200 | 0.16610 | 0.00250 | 0.42325 | 1001.4 | 8.4 | 991.0 | 14.0 | 1039 | 28 | 1039.0 | 28.0 | 4.6 | Single Age |
| CRP02_74 | 213 | 1.91 | 1.62100 | 0.02200 | 0.16330 | 0.00320 | 0.55454 | 977.6 | 8.4 | 975.0 | 18.0 | 957 | 30 | 957.0 | 30.0 | 1.9 | Single Age |
| CRP02_75 | 1246 | 2.04 | 11.48000 | 0.21000 | 0.46100 | 0.01100 | 0.77526 | 2560.0 | 17.0 | 2439.0 | 49.0 | 2618 | 26 | 2618.0 | 26.0 | 6.8 | Single Age |
| CRP02_76 | 294 | 1.75 | 0.83900 | 0.01400 | 0.09930 | 0.00160 | 0.40758 | 618.0 | 7.8 | 610.1 | 9.6 | 647 | 33 | 610.1 | 9.6 | 1.3 | Single Age |
| CRP02_77 | 491 | 3.32 | 13.84000 | 0.26000 | 0.50300 | 0.01100 | 0.84224 | 2736.0 | 19.0 | 2622.0 | 48.0 | 2805 | 22 | 2805.0 | 22.0 | 6.5 | Single Age |
| CRP02_78 | 413 | 2.75 | 0.84000 | 0.01400 | 0.09950 | 0.00200 | 0.77005 | 618.7 | 7.8 | 611.0 | 12.0 | 653 | 28 | 611.0 | 12.0 | 1.2 | Single Age |
| CRP02_79 | 63.6 | 3.03 | 11.72000 | 0.24000 | 0.47200 | 0.01100 | 0.91349 | 2582.0 | 21.0 | 2505.0 | 46.0 | 2651 | 23 | 2651.0 | 23.0 | 5.5 | Single Age |
| CRP02_80 | 176 | 0.69 | 5.17600 | 0.08000 | 0.32120 | 0.00600 | 0.71897 | 1849.0 | 13.0 | 1794.0 | 29.0 | 1871 | 22 | 1871.0 | 22.0 | 4.1 | Single Age |
| CRP02_81 | 296 | 2.08 | 1.58500 | 0.03900 | 0.15570 | 0.00450 | 0.81033 | 962.0 | 15.0 | 932.0 | 25.0 | 1006 | 46 | 1006.0 | 46.0 | 7.4 | Single Age |
| CRP02_82 | 285 | 0.98 | 3.66300 | 0.04900 | 0.26980 | 0.00450 | 0.86614 | 1562.0 | 11.0 | 1539.0 | 23.0 | 1580 | 21 | 1580.0 | 21.0 | 2.6 | Single Age |
| CRP02_83 | 890 | 35.30 | 0.74740 | 0.00880 | 0.09060 | 0.00160 | 0.78718 | 567.3 | 4.9 | 558.8 | 9.4 | 604 | 22 | 558.8 | 9.4 | 1.5 | Single Age |
| CRP02_84 | 371 | 4.82 | 13.97000 | 0.97000 | 0.43100 | 0.01800 | 0.96470 | 2697.0 | 74.0 | 2300.0 | 80.0 | 3010 | 70 | 3010.0 | 70.0 | 23.6 | Single Age |
| CRP02_85 | 995 | 10.02 | 1.36400 | 0.02000 | 0.14000 | 0.00230 | 0.83226 | 874.1 | 8.4 | 845.0 | 13.0 | 935 | 22 | 845.0 | 13.0 | 3.3 | Single Age |
| CRP02_86 | 431 | 5.51 | 5.56000 | 0.18000 | 0.32820 | 0.00940 | 0.80103 | 1916.0 | 29.0 | 1833.0 | 44.0 | 1993 | 38 | 1993.0 | 38.0 | 8.0 | Single Age |
| CRP02_87 | 147 | 2.59 | 9.17000 | 0.15000 | 0.42800 | 0.00700 | 0.91113 | 2349.0 | 17.0 | 2295.0 | 31.0 | 2395 | 19 | 2395.0 | 19.0 | 4.2 | Single Age |
| CRP02_88 | 1200 | 22.70 | 1.59400 | 0.02300 | 0.15930 | 0.00300 | 0.85174 | 967.1 | 9.0 | 952.0 | 16.0 | 980 | 20 | 980.0 | 20.0 | 2.9 | Single Age |
| CRP02_89 | 589 | 5.52 | 1.50300 | 0.04400 | 0.15260 | 0.00450 | 0.83564 | 929.0 | 18.0 | 915.0 | 25.0 | 952 | 40 | 952.0 | 40.0 | 3.9 | Single Age |
| CRP02_90 | 185 | 1.88 | 2.08000 | 0.28000 | 0.15700 | 0.01100 | 0.98596 | 1082.0 | 80.0 | 934.0 | 59.0 | 1380 | 120 | DISC | DISC | 32.3 | Single Age |
| CRP02_91 | 271 | 1.63 | 1.67900 | 0.03200 | 0.16310 | 0.00320 | 0.61848 | 999.0 | 12.0 | 974.0 | 18.0 | 1017 | 36 | 1017.0 | 36.0 | 4.2 | Single Age |
| CRP02_92 | 773 | 9.31 | 1.39500 | 0.01200 | 0.14270 | 0.00170 | 0.51372 | 886.6 | 5.3 | 859.7 | 9.8 | 929 | 18 | 929.0 | 18.0 | 7.5 | Single Age |
| CRP02_93 | 892 | 5.10 | 1.53900 | 0.04200 | 0.15590 | 0.00430 | 0.92753 | 943.0 | 17.0 | 933.0 | 24.0 | 977 | 24 | 977.0 | 24.0 | 4.5 | Single Age |
| CRP02_94 | 146.7 | 1.75 | 1.77900 | 0.02100 | 0.17040 | 0.00200 | 0.45197 | 1037.2 | 7.8 | 1014.0 | 11.0 | 1069 | 23 | 1069.0 | 23.0 | 5.1 | Single Age |
| CRP02_95 | 679 | 7.08 | 1.54400 | 0.03700 | 0.15690 | 0.00440 | 0.90650 | 946.0 | 15.0 | 939.0 | 25.0 | 968 | 22 | 968.0 | 22.0 | 3.0 | Single Age |
| CRP02_96 | 535 | 9.50 | 12.28000 | 0.18000 | 0.48440 | 0.00760 | 0.80408 | 2630.0 | 14.0 | 2545.0 | 33.0 | 2678 | 17 | 2678.0 | 17.0 | 5.0 | Single Age |
| CRP02_97 | 344 | 20.10 | 1.90900 | 0.05500 | 0.17690 | 0.00600 | 0.78759 | 1083.0 | 19.0 | 1048.0 | 33.0 | 1127 | 41 | 1127.0 | 41.0 | 7.0 | Single Age |
| CRP02_98 | 245 | 0.84 | 2.03700 | 0.07600 | 0.18660 | 0.00390 | 0.64812 | 1118.0 | 20.0 | 1102.0 | 21.0 | 1157 | 47 | 1157.0 | 47.0 | 4.8 | Single Age |
| CRP02_99 | 274 | 4.22 | 1.60300 | 0.05400 | 0.15830 | 0.00540 | 0.83667 | 972.0 | 21.0 | 946.0 | 30.0 | 1011 | 33 | 1011.0 | 33.0 | 6.4 | Single Age |

Table 4 Main Central Thrust hanging wall zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age (Ma) | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CRP02_100 | 521 | 1.21 | 9.94000 | 0.21000 | 0.44300 | 0.01100 | 0.75679 | 2427.0 | 20.0 | 2361.0 | 49.0 | 2458 | 29 | 2458.0 | 29.0 | 3.9 | Single Age |
| CRP02_101 | 433 | 5.86 | 1.64900 | 0.04100 | 0.16360 | 0.00490 | 0.69275 | 988.0 | 15.0 | 976.0 | 27.0 | 968 | 44 | 968.0 | 44.0 | 0.8 | Single Age |
| CRP02_102 | 73.5 | 0.83 | 1.40000 | 0.03700 | 0.13900 | 0.00330 | 0.73451 | 893.0 | 15.0 | 839.0 | 19.0 | 1003 | 39 | 839.0 | 19.0 | 6.0 | Single Age |
| CRP02_103 | 738 | 0.95 | 2.66700 | 0.03900 | 0.21740 | 0.00400 | 0.77589 | 1319.0 | 11.0 | 1267.0 | 21.0 | 1365 | 24 | 1365.0 | 24.0 | 7.2 | Single Age |
| CRP02_104 | 103.9 | 0.67 | 9.42000 | 0.11000 | 0.41540 | 0.00710 | 0.79255 | 2379.0 | 11.0 | 2242.0 | 33.0 | 2485 | 19 | 2485.0 | 19.0 | 9.8 | Single Age |
| CRP02_105 | 347 | 0.91 | 1.63600 | 0.05300 | 0.16170 | 0.00630 | 0.69672 | 983.0 | 21.0 | 964.0 | 35.0 | 982 | 62 | 982.0 | 62.0 | 1.8 | Single Age |
| CRP02_106 | 94 | 1.47 | 1.72900 | 0.03500 | 0.16870 | 0.00340 | 0.70018 | 1018.0 | 13.0 | 1004.0 | 19.0 | 1045 | 34 | 1045.0 | 34.0 | 3.9 | Single Age |
| CRP02_107 | 521 | 1.35 | 8.58000 | 0.19000 | 0.38830 | 0.00640 | 0.72919 | 2290.0 | 20.0 | 2114.0 | 30.0 | 2446 | 18 | 2446.0 | 18.0 | 13.6 | Single Age |
| CRP02_108 | 289 | 2.31 | 9.19000 | 0.18000 | 0.40700 | 0.01000 | 0.91170 | 2354.0 | 18.0 | 2198.0 | 48.0 | 2460 | 21 | 2460.0 | 21.0 | 10.7 | Single Age |
| CRP02_109 | 101.5 | 2.95 | 6.34000 | 0.21000 | 0.28800 | 0.01200 | 0.59279 | 2018.0 | 30.0 | 1627.0 | 58.0 | 2428 | 57 | DISC | DISC | 33.0 | Single Age |
| CRP02_110 | 254 | 1.28 | 1.56900 | 0.04300 | 0.15740 | 0.00490 | 0.74247 | 958.0 | 16.0 | 942.0 | 27.0 | 978 | 45 | 978.0 | 45.0 | 3.7 | Single Age |
| CRP02_111 | 860 | 22.00 | 3.27000 | 0.11000 | 0.25000 | 0.00820 | 0.88802 | 1476.0 | 26.0 | 1436.0 | 42.0 | 1507 | 36 | 1507.0 | 36.0 | 4.7 | Single Age |
| CRP02_112 | 300 | 2.57 | 9.42000 | 0.15000 | 0.43250 | 0.00740 | 0.64724 | 2377.0 | 15.0 | 2320.0 | 34.0 | 2416 | 23 | 2416.0 | 23.0 | 4.0 | Single Age |
| CRP02_113 | 51.1 | 1.93 | 1.56100 | 0.05200 | 0.15140 | 0.00600 | 0.63416 | 956.0 | 21.0 | 907.0 | 33.0 | 1019 | 65 | 1019.0 | 65.0 | 11.0 | Single Age |
| CRP02_114 | 182 | 0.90 | 1.61700 | 0.03500 | 0.16120 | 0.00420 | 0.66248 | 975.0 | 13.0 | 963.0 | 23.0 | 979 | 42 | 979.0 | 42.0 | 1.6 | Single Age |
| CRP02_115 | 28.42 | 2.72 | 1.66900 | 0.04800 | 0.15940 | 0.00510 | 0.40173 | 998.0 | 18.0 | 952.0 | 28.0 | 1063 | 66 | 1063.0 | 66.0 | 10.4 | Single Age |
| CRP02_116 | 173.7 | 0.84 | 8.26000 | 0.18000 | 0.37300 | 0.00950 | 0.79448 | 2256.0 | 20.0 | 2047.0 | 43.0 | 2420 | 28 | 2420.0 | 28.0 | 15.4 | Single Age |
| CRP02_117 | 103.5 | 0.80 | 1.13300 | 0.03000 | 0.12520 | 0.00360 | 0.57044 | 767.0 | 14.0 | 760.0 | 21.0 | 791 | 55 | 760.0 | 21.0 | 0.9 | Single Age |
| CRP02_118 | 579 | 1.09 | 1.97900 | 0.04400 | 0.18270 | 0.00490 | 0.82855 | 1108.0 | 15.0 | 1081.0 | 26.0 | 1117 | 30 | 1117.0 | 30.0 | 3.2 | Single Age |
| CRP02_119 | 857 | 44.60 | 1.43600 | 0.02300 | 0.14750 | 0.00280 | 0.82582 | 903.1 | 9.4 | 886.0 | 16.0 | 944 | 23 | 944.0 | 23.0 | 6.1 | Single Age |
| CRP02_120 | 200 | 0.83 | 3.81100 | 0.07400 | 0.27710 | 0.00670 | 0.73603 | 1596.0 | 16.0 | 1579.0 | 33.0 | 1616 | 30 | 1616.0 | 30.0 | 2.3 | Single Age |

Table 5 Foreland basin sample localities

| Sample | Fomation | Latitude | Longitude |
|---|---|---|---|
| 15HP33 | Subathu | 31°14'54.03"N | 76°54'45.95"E |
| 15HP34 | Dagshai | 31°14'54.83"N | 76°54'47.68"E |
| 15HP35 | Dagshai | 31°14'55.21"N | 76°54'49.31"E |
| KNS01 | Dagshai | 30°51'35.04"N | 77° 4'35.76"E |
| KNS02 | Kasauli | 30°35'50.16"N | 77°17'21.36"E |
| 15HP77 | Kasauli | 30°43'30.60"N | 77°11'3.93"E |
| SW01 | Upper Dharamsala | 31°12'41.52"N | 76°38'51.36"E |
| SW02 | Upper Dharamsala | 31°13'34.74"N | 76°46'34.38"E |
| 15HP37 | Lower Dharamsala (Chimnum Fm.) | 31°50'31.70"N | 76°46'16.72"E |
| 15HP39 | Lower Dharamsala (Pabo Fm.) | 31°50'27.91"N | 76°46'46.04"E |
| 15HP41 | Upper Dharamsala (Al Fm.) | 31°50'43.39"N | 76°47'17.38"E |
| 15HP43 | Upper Dharamsala (Al Fm.) | 31°52'20.10"N | 76°46'50.51"E |
| 15HP47 | Upper Dharamsala (Makreri Fm.) | 31°54'10.99"N | 76°47'21.24"E |
| 15HP80 | Upper Siwalik | 30°41'56.92"N | 76°52'52.73"E |

Table 6 Foreland basin zircon U-Pb results

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SW01_1 | 228 | 2.04 | 3.14400 | 0.04200 | 0.25330 | 0.00300 | 0.78773 | 1443.0 | 10.0 | 1455.0 | 15.0 | 1432 | 16 | 1432.0 | 16.0 | 1.6 | Single Age |
| SW01_2 | 151.1 | 1.46 | 3.07100 | 0.03000 | 0.24650 | 0.00200 | 0.52648 | 1425.0 | 7.6 | 1420.0 | 11.0 | 1444 | 17 | 1444.0 | 17.0 | 1.7 | Single Age |
| SW01_3 | 105 | 2.12 | 1.49000 | 0.02900 | 0.15520 | 0.00200 | 0.05036 | 925.0 | 12.0 | 930.0 | 11.0 | 924 | 35 | 924.0 | 35.0 | 0.6 | Single Age |
| SW01_4 | 241.1 | 2.30 | 1.69300 | 0.03300 | 0.16990 | 0.00220 | 0.72492 | 1005.0 | 12.0 | 1012.0 | 12.0 | 983 | 25 | 983.0 | 25.0 | 3.0 | Single Age |
| SW01_5 | 836 | 6.31 | 1.49100 | 0.05600 | 0.15560 | 0.00520 | 0.73687 | 931.0 | 24.0 | 932.0 | 29.0 | 939 | 43 | 939.0 | 43.0 | 0.7 | Single Age |
| SW01_6 | 308 | 2.64 | 5.48800 | 0.04500 | 0.34770 | 0.00300 | 0.69161 | 1898.3 | 7.0 | 1923.0 | 14.0 | 1887 | 11 | 1887.0 | 11.0 | 1.9 | Single Age |
| SW01_7 | 1720 | 1.19 | 0.50370 | 0.00650 | 0.05843 | 0.00084 | 0.72295 | 414.8 | 4.2 | 366.0 | 5.1 | 705 | 23 | DISC | DISC | 11.8 | Single Age |
| SW01_8 | 741 | 2.11 | 1.37200 | 0.01700 | 0.14730 | 0.00210 | 0.81357 | 876.8 | 7.4 | 886.0 | 12.0 | 860 | 17 | 860.0 | 17.0 | 3.0 | Single Age |
| SW01_10 | 279 | 5.00 | 5.76100 | 0.05500 | 0.34970 | 0.00350 | 0.72905 | 1940.9 | 8.0 | 1933.0 | 16.0 | 1963 | 13 | 1963.0 | 13.0 | 1.5 | Single Age |
| SW01_11 | 278 | 1.36 | 1.21900 | 0.05200 | 0.13060 | 0.00510 | 0.92935 | 819.0 | 20.0 | 791.0 | 29.0 | 888 | 26 | 791.0 | 29.0 | 3.4 | Single Age |
| SW01_12 | 97.7 | 2.36 | 1.58900 | 0.03400 | 0.15940 | 0.00250 | 0.64674 | 965.0 | 13.0 | 953.0 | 14.0 | 1030 | 36 | 1030.0 | 36.0 | 7.5 | Single Age |
| SW01_13 | 184 | 1.63 | 11.61000 | 0.12000 | 0.51000 | 0.00630 | 0.79623 | 2574.4 | 9.7 | 2656.0 | 27.0 | 2515 | 14 | 2515.0 | 14.0 | 5.6 | Single Age |
| SW01_15 | 356 | 1.49 | 1.54900 | 0.01900 | 0.15820 | 0.00150 | 0.68451 | 949.6 | 7.6 | 946.8 | 8.5 | 951 | 17 | 951.0 | 17.0 | 0.4 | Single Age |
| SW01_16 | 724 | 11.60 | 1.53400 | 0.03000 | 0.15190 | 0.00220 | 0.61626 | 943.0 | 12.0 | 911.0 | 12.0 | 1003 | 35 | 1003.0 | 35.0 | 9.2 | Rim |
| SW01_16 | 278.5 | 1.68 | 4.17200 | 0.08500 | 0.24060 | 0.00430 | 0.79557 | 1667.0 | 17.0 | 1390.0 | 22.0 | 2030 | 23 | DISC | DISC | 31.5 | Core |
| SW01_17 | 268 | 3.43 | 1.99600 | 0.02600 | 0.19100 | 0.00230 | 0.59705 | 1113.5 | 8.9 | 1127.0 | 13.0 | 1062 | 20 | 1062.0 | 20.0 | 6.1 | Single Age |
| SW01_18 | 74.1 | 0.72 | 10.97000 | 0.12000 | 0.48140 | 0.00530 | 0.59543 | 2520.9 | 9.6 | 2533.0 | 23.0 | 2504 | 16 | 2504.0 | 16.0 | 1.2 | Single Age |
| SW01_19 | 256.6 | 1.74 | 1.53300 | 0.02400 | 0.15850 | 0.00220 | 0.60102 | 945.4 | 9.1 | 948.0 | 12.0 | 936 | 30 | 936.0 | 30.0 | 1.3 | Single Age |
| SW01_20 | 309 | 7.17 | 2.00900 | 0.01900 | 0.18810 | 0.00160 | 0.58594 | 1118.2 | 6.5 | 1111.2 | 8.5 | 1111 | 17 | 1111.0 | 17.0 | 0.0 | Single Age |
| SW01_22 | 260.9 | 1.27 | 1.65000 | 0.02300 | 0.16400 | 0.00260 | 0.73206 | 990.1 | 8.4 | 981.0 | 15.0 | 1008 | 22 | 1008.0 | 22.0 | 2.7 | Single Age |
| SW01_23 | 416 | 0.74 | 1.70100 | 0.02600 | 0.16890 | 0.00210 | 0.80259 | 1008.2 | 9.8 | 1008.0 | 12.0 | 993 | 18 | 993.0 | 18.0 | 1.5 | Single Age |
| SW01_24 | 888 | 8.05 | 1.60700 | 0.01500 | 0.16180 | 0.00160 | 0.60728 | 972.7 | 5.9 | 966.7 | 8.9 | 967 | 17 | 967.0 | 17.0 | 0.0 | Single Age |
| SW01_25 | 358 | 1.28 | 1.85600 | 0.01700 | 0.18150 | 0.00200 | 0.64714 | 1065.3 | 6.1 | 1075.0 | 11.0 | 1054 | 16 | 1054.0 | 16.0 | 2.0 | Single Age |
| SW01_26 | 390.9 | 1.32 | 1.34000 | 0.03000 | 0.13920 | 0.00250 | 0.63964 | 863.0 | 13.0 | 840.0 | 14.0 | 922 | 34 | 840.0 | 14.0 | 2.7 | Single Age |
| SW01_28 | 272 | 1.21 | 1.64700 | 0.04200 | 0.16230 | 0.00300 | 0.61399 | 987.0 | 16.0 | 969.0 | 16.0 | 1041 | 38 | 1041.0 | 38.0 | 6.9 | Single Age |
| SW01_29 | 302 | 3.34 | 8.13000 | 0.30000 | 0.39800 | 0.01200 | 0.85249 | 2242.0 | 33.0 | 2159.0 | 55.0 | 2315 | 34 | 2315.0 | 34.0 | 6.7 | Single Age |
| SW01_30 | 165.6 | 1.07 | 1.49200 | 0.02200 | 0.15640 | 0.00220 | 0.50204 | 927.7 | 9.0 | 937.0 | 12.0 | 904 | 31 | 904.0 | 31.0 | 3.7 | Single Age |
| SW01_31 | 285 | 4.63 | 1.63800 | 0.02600 | 0.16630 | 0.00250 | 0.73607 | 985.7 | 9.6 | 991.0 | 14.0 | 961 | 25 | 961.0 | 25.0 | 3.1 | Single Age |
| SW01_32 | 79.5 | 1.39 | 3.04100 | 0.03800 | 0.24940 | 0.00310 | 0.53459 | 1417.3 | 9.6 | 1435.0 | 16.0 | 1395 | 23 | 1395.0 | 23.0 | 2.9 | Single Age |
| SW01_34 | 1290 | 52.10 | 2.49800 | 0.02600 | 0.22240 | 0.00270 | 0.77619 | 1273.5 | 7.4 | 1294.0 | 14.0 | 1242 | 14 | 1242.0 | 14.0 | 4.2 | Single Age |
| SW01_35 | 59.3 | 1.42 | 1.56900 | 0.03100 | 0.16300 | 0.00260 | 0.28014 | 958.0 | 13.0 | 973.0 | 14.0 | 926 | 41 | 926.0 | 41.0 | 5.1 | Single Age |
| SW01_36 | 665.1 | 7.99 | 10.64700 | 0.07300 | 0.48400 | 0.00430 | 0.81048 | 2492.5 | 6.3 | 2544.0 | 19.0 | 2454 | 9 | 2453.5 | 8.7 | 3.7 | Single Age |
| SW01_37 | 26.9 | 0.75 | 3.72700 | 0.08800 | 0.27370 | 0.00520 | 0.56540 | 1577.0 | 19.0 | 1559.0 | 26.0 | 1588 | 40 | 1588.0 | 40.0 | 1.8 | Single Age |
| SW01_38 | 18.03 | 0.98 | 2.47500 | 0.06000 | 0.20740 | 0.00370 | 0.26931 | 1267.0 | 18.0 | 1214.0 | 20.0 | 1340 | 53 | 1340.0 | 53.0 | 9.4 | Single Age |
| SW01_39 | 218.4 | 0.53 | 2.30800 | 0.02200 | 0.20810 | 0.00220 | 0.64181 | 1214.4 | 6.8 | 1218.0 | 12.0 | 1206 | 16 | 1206.0 | 16.0 | 1.0 | Single Age |
| SW01_40 | 701 | 1.57 | 1.59600 | 0.01700 | 0.16050 | 0.00140 | 0.76947 | 969.1 | 6.9 | 959.5 | 7.7 | 981 | 15 | 981.0 | 15.0 | 2.2 | Single Age |
| SW01_41 | 127 | 1.34 | 4.23300 | 0.04900 | 0.30750 | 0.00360 | 0.62154 | 1679.6 | 9.4 | 1728.0 | 18.0 | 1612 | 21 | 1612.0 | 21.0 | 7.2 | Single Age |
| SW01_42 | 83.1 | 0.62 | 1.27800 | 0.05000 | 0.13120 | 0.00230 | 0.01947 | 826.0 | 15.0 | 794.0 | 13.0 | 896 | 56 | 794.0 | 13.0 | 3.9 | Single Age |
| SW01_43 | 306 | 4.25 | 1.60400 | 0.03000 | 0.16290 | 0.00250 | 0.81916 | 971.0 | 12.0 | 972.0 | 14.0 | 950 | 22 | 950.0 | 22.0 | 2.3 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SW01_44 | 310 | 2.22 | 0.77300 | 0.01200 | 0.09370 | 0.00120 | 0.53746 | 581.3 | 6.6 | 577.5 | 7.3 | 596 | 27 | 577.5 | 7.3 | 0.7 | Single Age |
| SW01_45 | 218 | 3.99 | 4.50900 | 0.06200 | 0.31040 | 0.00360 | 0.67801 | 1731.0 | 11.0 | 1747.0 | 17.0 | 1702 | 17 | 1702.0 | 17.0 | 2.6 | Single Age |
| SW01_46 | 326 | 3.59 | 10.66800 | 0.09500 | 0.47650 | 0.00440 | 0.72313 | 2494.0 | 8.2 | 2514.0 | 19.0 | 2459 | 10 | 2459.0 | 10.0 | 2.2 | Single Age |
| SW01_47 | 161.9 | 2.20 | 0.85700 | 0.01000 | 0.10310 | 0.00130 | 0.21042 | 628.2 | 5.5 | 632.5 | 7.6 | 577 | 32 | 632.5 | 7.6 | 0.7 | Single Age |
| SW01_48 | 1030 | 3.10 | 0.64430 | 0.00810 | 0.08263 | 0.00095 | 0.74770 | 504.7 | 5.0 | 511.8 | 5.6 | 473 | 18 | 511.8 | 5.6 | 1.4 | Single Age |
| SW01_49 | 503 | 6.50 | 1.75800 | 0.03200 | 0.17440 | 0.00340 | 0.84269 | 1029.0 | 12.0 | 1036.0 | 19.0 | 1009 | 19 | 1009.0 | 19.0 | 2.7 | Rim |
| SW01_49 | 240 | 0.88 | 2.79100 | 0.03900 | 0.24040 | 0.00360 | 0.25413 | 1355.6 | 9.6 | 1389.0 | 19.0 | 1311 | 28 | 1311.0 | 28.0 | 5.9 | Core |
| SW01_50 | 277 | 2.27 | 2.11900 | 0.02200 | 0.19150 | 0.00200 | 0.28787 | 1154.6 | 7.2 | 1129.0 | 11.0 | 1190 | 22 | 1190.0 | 22.0 | 5.1 | Single Age |
| SW01_51 | 73.4 | 0.33 | 0.65800 | 0.02500 | 0.08640 | 0.00240 | 0.06409 | 513.0 | 15.0 | 534.0 | 14.0 | 425 | 98 | 534.0 | 14.0 | 4.1 | Single Age |
| SW01_52 | 322 | 1.90 | 1.68400 | 0.02100 | 0.17140 | 0.00210 | 0.81768 | 1003.0 | 8.2 | 1020.0 | 12.0 | 972 | 15 | 972.0 | 15.0 | 4.9 | Single Age |
| SW01_53 | 187 | 1.55 | 1.71600 | 0.02400 | 0.17130 | 0.00200 | 0.52079 | 1013.9 | 9.1 | 1019.0 | 11.0 | 989 | 25 | 989.0 | 25.0 | 3.0 | Single Age |
| SW01_54 | 142 | 1.62 | 4.58800 | 0.04300 | 0.31770 | 0.00340 | 0.55128 | 1746.5 | 7.8 | 1778.0 | 17.0 | 1721 | 18 | 1721.0 | 18.0 | 3.3 | Single Age |
| SW01_55 | 177.3 | 0.89 | 0.71700 | 0.02000 | 0.07840 | 0.00200 | 0.61322 | 548.0 | 11.0 | 487.0 | 12.0 | 824 | 48 | DISC | DISC | 11.1 | Single Age |
| SW01_56 | 91.1 | 1.44 | 1.65800 | 0.02400 | 0.16770 | 0.00180 | 0.30681 | 991.8 | 8.9 | 999.5 | 9.9 | 971 | 30 | 971.0 | 30.0 | 2.9 | Single Age |
| SW01_57 | 574 | 6.08 | 2.01300 | 0.02600 | 0.19500 | 0.00240 | 0.80850 | 1122.7 | 9.0 | 1148.0 | 13.0 | 1083 | 15 | 1083.0 | 15.0 | 6.0 | Single Age |
| SW01_58 | 391 | 3.58 | 0.95900 | 0.01200 | 0.11170 | 0.00100 | 0.58282 | 683.0 | 6.1 | 682.6 | 6.1 | 705 | 21 | 682.6 | 6.1 | 0.1 | Single Age |
| SW01_59 | 208.6 | 1.45 | 1.79700 | 0.03000 | 0.17410 | 0.00220 | 0.36640 | 1041.2 | 9.9 | 1034.0 | 12.0 | 1061 | 29 | 1061.0 | 29.0 | 2.5 | Single Age |
| SW01_60 | 112.4 | 1.53 | 5.45400 | 0.06600 | 0.34960 | 0.00510 | 0.63327 | 1894.0 | 10.0 | 1932.0 | 24.0 | 1861 | 22 | 1861.0 | 22.0 | 3.8 | Single Age |
| SW01_61 | 194 | 0.84 | 4.18500 | 0.04500 | 0.30690 | 0.00310 | 0.25023 | 1670.4 | 9.0 | 1725.0 | 16.0 | 1610 | 17 | 1610.0 | 17.0 | 7.1 | Single Age |
| SW01_62 | 378 | 1.49 | 1.73400 | 0.01900 | 0.17660 | 0.00200 | 0.64126 | 1021.0 | 7.0 | 1048.0 | 11.0 | 971 | 21 | 971.0 | 21.0 | 7.9 | Single Age |
| SW01_63 | 152 | 3.69 | 1.46400 | 0.01900 | 0.15470 | 0.00190 | 0.36030 | 916.3 | 7.6 | 927.0 | 10.0 | 886 | 26 | 886.0 | 26.0 | 4.6 | Single Age |
| SW01_64 | 369 | 12.90 | 1.60200 | 0.03100 | 0.16110 | 0.00250 | 0.52370 | 973.0 | 11.0 | 963.0 | 14.0 | 1019 | 34 | 1019.0 | 34.0 | 5.5 | Single Age |
| SW01_65 | 87.1 | 0.51 | 1.43000 | 0.03000 | 0.14800 | 0.00210 | 0.53687 | 900.0 | 13.0 | 890.0 | 12.0 | 933 | 38 | 933.0 | 38.0 | 4.6 | Single Age |
| SW01_66 | 56.7 | 1.30 | 1.79400 | 0.03200 | 0.17740 | 0.00220 | 0.28927 | 1042.0 | 12.0 | 1053.0 | 12.0 | 1042 | 36 | 1042.0 | 36.0 | 1.1 | Single Age |
| SW01_67 | 271 | 5.21 | 1.50700 | 0.02000 | 0.15920 | 0.00170 | 0.70098 | 932.4 | 8.2 | 952.5 | 9.4 | 861 | 18 | 861.0 | 18.0 | 10.6 | Single Age |
| SW01_68 | 284 | 15.50 | 5.55300 | 0.07700 | 0.34560 | 0.00580 | 0.73096 | 1910.0 | 12.0 | 1913.0 | 28.0 | 1902 | 19 | 1902.0 | 19.0 | 0.6 | Single Age |
| SW01_69 | 127.3 | 2.27 | 1.58400 | 0.02400 | 0.16280 | 0.00200 | 0.53522 | 964.2 | 9.2 | 972.0 | 11.0 | 941 | 27 | 941.0 | 27.0 | 3.3 | Single Age |
| SW01_70 | 1307 | 18.45 | 14.11000 | 0.33000 | 0.53300 | 0.01100 | 0.84663 | 2758.0 | 21.0 | 2754.0 | 45.0 | 2726 | 21 | 2726.0 | 21.0 | 1.0 | Single Age |
| SW01_71 | 57.1 | 1.05 | 10.98000 | 0.11000 | 0.48870 | 0.00560 | 0.72269 | 2521.9 | 9.6 | 2564.0 | 24.0 | 2482 | 13 | 2482.0 | 13.0 | 3.3 | Single Age |
| SW01_72 | 229 | 1.62 | 2.06800 | 0.02300 | 0.19670 | 0.00220 | 0.44169 | 1137.7 | 7.7 | 1157.0 | 12.0 | 1094 | 23 | 1094.0 | 23.0 | 5.8 | Single Age |
| SW01_73 | 130.5 | 0.98 | 1.91200 | 0.02500 | 0.18460 | 0.00250 | 0.59295 | 1084.6 | 8.6 | 1092.0 | 14.0 | 1059 | 24 | 1059.0 | 24.0 | 3.1 | Single Age |
| SW01_74 | 548 | 3.73 | 26.08000 | 0.48000 | 0.67200 | 0.01200 | 0.87029 | 3349.0 | 18.0 | 3312.0 | 46.0 | 3352 | 14 | 3352.0 | 14.0 | 1.2 | Single Age |
| SW01_75 | 157 | 1.20 | 1.73100 | 0.02400 | 0.17270 | 0.00190 | 0.49762 | 1019.5 | 8.8 | 1027.0 | 11.0 | 995 | 26 | 995.0 | 26.0 | 3.2 | Single Age |
| SW01_76 | 657 | 2.47 | 0.73700 | 0.01300 | 0.09110 | 0.00160 | 0.87207 | 560.1 | 7.8 | 561.7 | 9.4 | 544 | 17 | 561.7 | 9.4 | 0.3 | Single Age |
| SW01_77 | 150.2 | 0.89 | 9.23000 | 0.13000 | 0.40540 | 0.00730 | 0.58528 | 2360.0 | 13.0 | 2193.0 | 33.0 | 2499 | 28 | 2499.0 | 28.0 | 12.2 | Single Age |
| SW01_78 | 380 | 1.56 | 2.31700 | 0.01600 | 0.21070 | 0.00140 | 0.57500 | 1217.4 | 4.9 | 1232.7 | 7.7 | 1185 | 14 | 1185.0 | 14.0 | 4.0 | Single Age |
| SW01_79 | 80.3 | 0.92 | 1.39900 | 0.02300 | 0.14950 | 0.00170 | 0.19440 | 887.5 | 9.7 | 897.9 | 9.4 | 849 | 39 | 849.0 | 9.4 | 1.2 | Single Age |
| SW01_80 | 326 | 33.70 | 2.05900 | 0.04700 | 0.19150 | 0.00200 | 0.61935 | 1134.0 | 15.0 | 1129.0 | 11.0 | 1117 | 34 | 1117.0 | 34.0 | 1.1 | Single Age |
| SW01_81 | 593 | 1.93 | 10.02000 | 0.16000 | 0.45290 | 0.00840 | 0.62814 | 2436.0 | 15.0 | 2407.0 | 37.0 | 2447 | 25 | 2447.0 | 25.0 | 1.6 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SW01_82 | 152.6 | 0.87 | 1.30500 | 0.01700 | 0.13990 | 0.00170 | 0.42900 | 847.2 | 7.6 | 844.2 | 9.4 | 863 | 25 | 844.2 | 9.4 | 0.4 | Single Age |
| SW01_83 | 323 | 1.57 | 1.64000 | 0.01800 | 0.16530 | 0.00200 | 0.66158 | 986.4 | 6.6 | 986.0 | 11.0 | 977 | 20 | 977.0 | 20.0 | 0.9 | Single Age |
| SW01_84 | 109 | 1.87 | 1.46200 | 0.03300 | 0.15380 | 0.00310 | 0.80733 | 915.0 | 14.0 | 924.0 | 18.0 | 904 | 28 | 904.0 | 28.0 | 2.2 | Single Age |
| SW01_85 | 243 | 2.21 | 1.96700 | 0.04300 | 0.18240 | 0.00280 | 0.85464 | 1107.0 | 15.0 | 1082.0 | 16.0 | 1188 | 22 | 1188.0 | 22.0 | 8.9 | Single Age |
| SW01_86 | 108 | 1.50 | 1.79600 | 0.03000 | 0.18090 | 0.00300 | 0.67734 | 1045.0 | 11.0 | 1072.0 | 16.0 | 985 | 28 | 985.0 | 28.0 | 8.8 | Single Age |
| SW01_87 | 301 | 0.81 | 1.72900 | 0.03000 | 0.15890 | 0.00360 | 0.63781 | 1019.0 | 11.0 | 950.0 | 20.0 | 1186 | 34 | 1186.0 | 34.0 | 19.9 | Single Age |
| SW01_88 | 207.1 | 2.05 | 1.34000 | 0.01800 | 0.13940 | 0.00150 | 0.45266 | 862.4 | 8.0 | 841.4 | 8.4 | 939 | 24 | 841.4 | 8.4 | 2.4 | Single Age |
| SW01_89 | 468 | 3.39 | 1.53300 | 0.07400 | 0.15740 | 0.00670 | 0.94592 | 941.0 | 30.0 | 941.0 | 38.0 | 957 | 28 | 957.0 | 28.0 | 1.7 | Single Age |
| SW01_90 | 259 | 1.41 | 1.33600 | 0.01900 | 0.14450 | 0.00230 | 0.68492 | 861.0 | 8.4 | 870.0 | 13.0 | 850 | 23 | 850.0 | 23.0 | 1.0 | Single Age |
| SW01_91 | 380 | 3.69 | 1.65700 | 0.02200 | 0.17050 | 0.00210 | 0.68204 | 992.8 | 8.4 | 1015.0 | 12.0 | 958 | 21 | 958.0 | 21.0 | 5.9 | Single Age |
| SW01_92 | 568 | 5.81 | 1.75100 | 0.01700 | 0.17840 | 0.00200 | 0.67139 | 1027.2 | 6.4 | 1058.0 | 11.0 | 979 | 18 | 979.0 | 18.0 | 8.1 | Single Age |
| SW01_93 | 454 | 4.78 | 2.53300 | 0.02400 | 0.22620 | 0.00210 | 0.75652 | 1282.0 | 6.8 | 1315.0 | 11.0 | 1245 | 12 | 1245.0 | 12.0 | 5.6 | Single Age |
| SW01_94 | 168 | 0.92 | 5.57000 | 0.07000 | 0.36440 | 0.00440 | 0.64310 | 1911.0 | 11.0 | 2005.0 | 20.0 | 1825 | 15 | 1825.0 | 15.0 | 9.9 | Single Age |
| SW01_95 | 356 | 1.57 | 1.48000 | 0.04800 | 0.14060 | 0.00310 | 0.78935 | 924.0 | 21.0 | 848.0 | 18.0 | 1109 | 40 | 848.0 | 18.0 | 8.2 | Single Age |
| SW01_96 | 127 | 0.72 | 1.32400 | 0.01900 | 0.14340 | 0.00250 | 0.58843 | 856.9 | 8.4 | 864.0 | 14.0 | 838 | 29 | 838.0 | 14.0 | 0.8 | Single Age |
| SW01_97 | 253.3 | 20.90 | 2.88900 | 0.08300 | 0.24230 | 0.00640 | 0.60889 | 1378.0 | 22.0 | 1398.0 | 33.0 | 1385 | 48 | 1385.0 | 48.0 | 0.9 | Rim |
| SW01_97 | 73.3 | 0.86 | 4.63400 | 0.06400 | 0.31370 | 0.00490 | 0.51787 | 1755.0 | 12.0 | 1758.0 | 24.0 | 1733 | 23 | 1733.0 | 23.0 | 1.4 | Core |
| SW01_98 | 355 | 1.34 | 5.18300 | 0.06900 | 0.33200 | 0.00520 | 0.79159 | 1853.0 | 12.0 | 1847.0 | 25.0 | 1861 | 17 | 1861.0 | 17.0 | 0.8 | Single Age |
| SW01_99 | 49.7 | 1.15 | 1.22600 | 0.02400 | 0.13560 | 0.00190 | 0.19462 | 812.0 | 11.0 | 819.0 | 11.0 | 808 | 47 | 819.0 | 11.0 | 0.9 | Single Age |
| SW01_100 | 286 | 3.13 | 1.64800 | 0.02400 | 0.16710 | 0.00340 | 0.71523 | 988.4 | 9.1 | 996.0 | 19.0 | 971 | 33 | 971.0 | 33.0 | 2.6 | Single Age |
| SW01_101 | 403 | 5.26 | 5.24900 | 0.08400 | 0.33580 | 0.00440 | 0.30658 | 1856.0 | 11.0 | 1866.0 | 21.0 | 1838 | 24 | 1838.0 | 24.0 | 1.5 | Single Age |
| SW01_103 | 76.8 | 0.60 | 5.51000 | 0.11000 | 0.34620 | 0.00710 | 0.68170 | 1904.0 | 16.0 | 1916.0 | 34.0 | 1870 | 27 | 1870.0 | 27.0 | 2.5 | Single Age |
| SW01_104 | 293 | 1.05 | 4.64300 | 0.05600 | 0.31930 | 0.00460 | 0.75937 | 1757.0 | 10.0 | 1786.0 | 23.0 | 1719 | 16 | 1719.0 | 16.0 | 3.9 | Single Age |
| SW01_105 | 570 | 4.60 | 2.27700 | 0.05300 | 0.20980 | 0.00520 | 0.73322 | 1204.0 | 16.0 | 1227.0 | 27.0 | 1168 | 24 | 1168.0 | 24.0 | 5.1 | Single Age |
| SW01_106 | 174 | 0.87 | 1.47100 | 0.02100 | 0.15450 | 0.00240 | 0.60313 | 918.9 | 8.4 | 927.0 | 13.0 | 883 | 25 | 883.0 | 25.0 | 5.0 | Single Age |
| SW01_107 | 168 | 0.95 | 2.29600 | 0.02800 | 0.21080 | 0.00310 | 0.56806 | 1210.5 | 8.6 | 1233.0 | 16.0 | 1155 | 26 | 1155.0 | 26.0 | 6.8 | Single Age |
| SW01_108 | 116.7 | 1.66 | 4.83200 | 0.05400 | 0.32740 | 0.00280 | 0.54882 | 1789.6 | 9.4 | 1826.0 | 14.0 | 1744 | 19 | 1744.0 | 19.0 | 4.7 | Single Age |
| SW01_109 | 169 | 2.13 | 1.23600 | 0.02500 | 0.13590 | 0.00210 | 0.72288 | 816.0 | 11.0 | 821.0 | 12.0 | 805 | 26 | 821.0 | 12.0 | 0.6 | Single Age |
| SW01_111 | 152.3 | 1.54 | 0.90600 | 0.01300 | 0.10820 | 0.00110 | 0.26879 | 654.6 | 7.2 | 662.1 | 6.2 | 642 | 35 | 662.1 | 6.2 | 1.1 | Single Age |
| SW01_112 | 37.8 | 1.99 | 0.82800 | 0.02500 | 0.10070 | 0.00180 | 0.33642 | 612.0 | 14.0 | 618.0 | 11.0 | 595 | 69 | 618.0 | 11.0 | 1.0 | Single Age |
| SW01_113 | 39.26 | 1.41 | 1.73300 | 0.06300 | 0.16500 | 0.00860 | 0.04585 | 1020.0 | 24.0 | 984.0 | 48.0 | 1040 | 160 | 1040.0 | 160.0 | 5.4 | Single Age |
| SW01_114 | 186.7 | 1.96 | 10.38600 | 0.06800 | 0.45770 | 0.00350 | 0.60116 | 2469.5 | 6.1 | 2429.0 | 16.0 | 2508 | 12 | 2508.0 | 12.0 | 3.1 | Single Age |
| SW01_115 | 29.66 | 1.22 | 1.33900 | 0.04300 | 0.14630 | 0.00230 | 0.08831 | 864.0 | 19.0 | 880.0 | 13.0 | 834 | 79 | 834.0 | 13.0 | 1.9 | Single Age |
| SW01_116 | 408 | 15.70 | 1.21900 | 0.01600 | 0.13430 | 0.00190 | 0.56010 | 809.2 | 7.2 | 812.0 | 11.0 | 785 | 26 | 812.0 | 11.0 | 0.3 | Rim |
| SW01_116 | 110.6 | 5.02 | 3.78900 | 0.08900 | 0.27610 | 0.00610 | 0.59900 | 1595.0 | 17.0 | 1571.0 | 31.0 | 1629 | 36 | 1629.0 | 36.0 | 3.6 | Core |
| SW01_117 | 56.6 | 0.78 | 10.81000 | 0.10000 | 0.48820 | 0.00550 | 0.59789 | 2508.1 | 8.7 | 2562.0 | 24.0 | 2461 | 16 | 2461.0 | 16.0 | 4.1 | Single Age |
| SW01_118 | 220 | 1.75 | 4.50900 | 0.05300 | 0.30900 | 0.00370 | 0.78546 | 1732.0 | 9.7 | 1735.0 | 18.0 | 1697 | 21 | 1697.0 | 21.0 | 2.2 | Single Age |
| SW01_119 | 51.4 | 1.06 | 14.86000 | 0.37000 | 0.54600 | 0.01100 | 0.79415 | 2810.0 | 23.0 | 2808.0 | 47.0 | 2795 | 24 | 2795.0 | 24.0 | 0.5 | Single Age |
| SW01_120 | 73 | 0.69 | 1.73200 | 0.03600 | 0.17250 | 0.00230 | 0.38299 | 1019.0 | 14.0 | 1026.0 | 13.0 | 1001 | 37 | 1001.0 | 37.0 | 2.5 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SW02_1 | 860 | 49.70 | 1.48100 | 0.02700 | 0.15490 | 0.00240 | 0.90659 | 923.0 | 11.0 | 928.0 | 14.0 | 920 | 17 | 920.0 | 17.0 | 0.9 | Single Age |
| SW02_2 | 32.03 | 1.32 | 1.90500 | 0.03600 | 0.17960 | 0.00280 | 0.05830 | 1081.0 | 12.0 | 1065.0 | 16.0 | 1117 | 40 | 1117.0 | 40.0 | 4.7 | Single Age |
| SW02_3 | 254 | 2.07 | 1.30200 | 0.01800 | 0.13990 | 0.00190 | 0.74133 | 847.0 | 8.1 | 844.0 | 11.0 | 844 | 21 | 844.0 | 11.0 | 0.4 | Single Age |
| SW02_4 | 243.1 | 0.93 | 1.02400 | 0.01800 | 0.11550 | 0.00200 | 0.37819 | 715.9 | 9.2 | 704.0 | 12.0 | 778 | 45 | 704.0 | 12.0 | 1.7 | Single Age |
| SW02_5 | 296 | 1.47 | 4.70300 | 0.05000 | 0.30570 | 0.00360 | 0.72028 | 1767.0 | 8.8 | 1719.0 | 18.0 | 1828 | 16 | 1828.0 | 16.0 | 6.0 | Single Age |
| SW02_6 | 86.1 | 0.65 | 3.69700 | 0.07300 | 0.27330 | 0.00480 | 0.79324 | 1571.0 | 16.0 | 1557.0 | 24.0 | 1586 | 20 | 1586.0 | 20.0 | 1.8 | Single Age |
| SW02_7 | 196.5 | 1.40 | 1.26000 | 0.01800 | 0.12770 | 0.00220 | 0.64377 | 828.5 | 8.1 | 775.0 | 12.0 | 964 | 26 | 775.0 | 12.0 | 6.5 | Single Age |
| SW02_8 | 267 | 1.40 | 10.02000 | 0.17000 | 0.44750 | 0.00760 | 0.87140 | 2434.0 | 16.0 | 2382.0 | 34.0 | 2481 | 14 | 2481.0 | 14.0 | 4.0 | Single Age |
| SW02_9 | 511 | 2.13 | 0.87500 | 0.02100 | 0.10360 | 0.00260 | 0.85152 | 638.0 | 11.0 | 635.0 | 15.0 | 619 | 28 | 635.0 | 15.0 | 0.5 | Single Age |
| SW02_10 | 216 | 1.03 | 3.13700 | 0.04500 | 0.22660 | 0.00400 | 0.83005 | 1443.0 | 11.0 | 1316.0 | 21.0 | 1641 | 18 | 1641.0 | 18.0 | 19.8 | Single Age |
| SW02_11 | 103.1 | 0.86 | 1.81400 | 0.03300 | 0.17130 | 0.00250 | 0.65977 | 1049.0 | 12.0 | 1019.0 | 14.0 | 1120 | 28 | 1120.0 | 28.0 | 9.0 | Single Age |
| SW02_13 | 725 | 59.30 | 0.70700 | 0.01200 | 0.08750 | 0.00170 | 0.84434 | 542.8 | 7.2 | 540.5 | 9.9 | 558 | 24 | 540.5 | 9.9 | 0.4 | Rim |
| SW02_13 | 69.2 | 0.72 | 1.12900 | 0.04000 | 0.12270 | 0.00270 | 0.22711 | 767.0 | 19.0 | 746.0 | 16.0 | 806 | 77 | 746.0 | 16.0 | 2.7 | Core |
| SW02_14 | 158 | 46.00 | 0.76600 | 0.01400 | 0.09360 | 0.00120 | 0.63372 | 577.0 | 8.3 | 576.5 | 7.3 | 588 | 35 | 576.5 | 7.3 | 0.1 | Single Age |
| SW02_15 | 37.3 | 1.30 | 0.14100 | 0.01300 | 0.01986 | 0.00064 | 0.06993 | 133.0 | 11.0 | 126.8 | 4.1 | 230 | 140 | 126.8 | 4.1 | 4.7 | Single Age |
| SW02_16 | 732 | 2.09 | 1.16800 | 0.01600 | 0.12620 | 0.00170 | 0.82793 | 785.4 | 7.4 | 765.7 | 9.8 | 832 | 16 | 765.7 | 9.8 | 2.5 | Single Age |
| SW02_17 | 462 | 5.29 | 1.51400 | 0.01700 | 0.15400 | 0.00220 | 0.75615 | 936.3 | 6.8 | 923.0 | 12.0 | 967 | 20 | 967.0 | 20.0 | 4.6 | Single Age |
| SW02_18 | 646 | 9.97 | 4.99400 | 0.05600 | 0.32060 | 0.00420 | 0.74256 | 1817.4 | 9.5 | 1792.0 | 21.0 | 1842 | 16 | 1842.0 | 16.0 | 2.7 | Single Age |
| SW02_19 | 1397 | 1.56 | 1.44200 | 0.01400 | 0.15370 | 0.00190 | 0.70301 | 906.1 | 5.8 | 923.0 | 11.0 | 878 | 17 | 878.0 | 17.0 | 5.1 | Single Age |
| SW02_20 | 626 | 13.74 | 10.35000 | 0.12000 | 0.44560 | 0.00460 | 0.77531 | 2465.0 | 11.0 | 2377.0 | 21.0 | 2539 | 12 | 2539.0 | 12.0 | 6.4 | Single Age |
| SW02_21 | 144.8 | 1.19 | 1.85400 | 0.01800 | 0.17490 | 0.00140 | 0.53000 | 1064.4 | 6.5 | 1038.8 | 7.7 | 1114 | 18 | 1114.0 | 18.0 | 6.8 | Single Age |
| SW02_22 | 516 | 3.63 | 0.59020 | 0.00810 | 0.07630 | 0.00100 | 0.71955 | 470.8 | 5.2 | 473.8 | 6.1 | 474 | 22 | 473.8 | 6.1 | 0.6 | Single Age |
| SW02_23 | 127.9 | 0.54 | 0.62900 | 0.01000 | 0.07900 | 0.00120 | 0.34827 | 494.9 | 6.6 | 490.1 | 7.3 | 525 | 41 | 490.1 | 7.3 | 1.0 | Single Age |
| SW02_24 | 337 | 1.14 | 1.19800 | 0.01400 | 0.13020 | 0.00140 | 0.72461 | 800.0 | 6.6 | 789.1 | 8.2 | 848 | 17 | 789.1 | 8.2 | 1.4 | Single Age |
| SW02_25 | 1024 | 30.50 | 0.79900 | 0.02400 | 0.09490 | 0.00370 | 0.81449 | 599.0 | 14.0 | 584.0 | 22.0 | 665 | 51 | 584.0 | 22.0 | 2.5 | Rim |
| SW02_25 | 352.7 | 1.98 | 1.61900 | 0.02000 | 0.16540 | 0.00270 | 0.71260 | 979.0 | 8.3 | 986.0 | 15.0 | 988 | 22 | 988.0 | 22.0 | 0.2 | Core |
| SW02_26 | 118.8 | 2.74 | 1.66400 | 0.02900 | 0.16560 | 0.00200 | 0.39282 | 994.0 | 11.0 | 988.0 | 11.0 | 1058 | 37 | 1058.0 | 37.0 | 6.6 | Single Age |
| SW02_27 | 233.5 | 0.85 | 1.22800 | 0.03300 | 0.13280 | 0.00300 | 0.65076 | 813.0 | 15.0 | 804.0 | 17.0 | 859 | 46 | 804.0 | 17.0 | 1.1 | Single Age |
| SW02_28 | 521 | 2.31 | 4.64800 | 0.09000 | 0.30260 | 0.00700 | 0.71232 | 1757.0 | 16.0 | 1704.0 | 35.0 | 1859 | 34 | 1859.0 | 34.0 | 8.3 | Single Age |
| SW02_29 | 312 | 3.94 | 4.99700 | 0.05100 | 0.31750 | 0.00330 | 0.75283 | 1818.2 | 8.7 | 1777.0 | 16.0 | 1871 | 13 | 1871.0 | 13.0 | 5.0 | Single Age |
| SW02_30 | 103.3 | 3.77 | 15.40000 | 0.26000 | 0.52430 | 0.00660 | 0.76018 | 2842.0 | 16.0 | 2721.0 | 29.0 | 2943 | 22 | 2943.0 | 22.0 | 7.5 | Single Age |
| SW02_31 | 409 | 2.85 | 1.36100 | 0.02500 | 0.14510 | 0.00270 | 0.74973 | 872.0 | 10.0 | 873.0 | 15.0 | 865 | 30 | 865.0 | 30.0 | 0.9 | Single Age |
| SW02_32 | 82 | 1.79 | 9.72000 | 0.22000 | 0.42610 | 0.00930 | 0.79618 | 2405.0 | 20.0 | 2292.0 | 43.0 | 2494 | 23 | 2494.0 | 23.0 | 8.1 | Single Age |
| SW02_33 | 257 | 8.50 | 5.30200 | 0.07200 | 0.34160 | 0.00520 | 0.79386 | 1869.0 | 12.0 | 1893.0 | 25.0 | 1851 | 18 | 1851.0 | 18.0 | 2.3 | Single Age |
| SW02_34 | 77.9 | 0.79 | 4.61300 | 0.05100 | 0.31000 | 0.00400 | 0.41627 | 1752.2 | 9.4 | 1740.0 | 20.0 | 1776 | 25 | 1776.0 | 25.0 | 2.0 | Single Age |
| SW02_35 | 168.9 | 2.48 | 1.23600 | 0.01800 | 0.13410 | 0.00180 | 0.56491 | 817.5 | 7.9 | 811.0 | 10.0 | 837 | 27 | 811.0 | 10.0 | 0.8 | Single Age |
| SW02_36 | 576 | 78.00 | 1.67200 | 0.02000 | 0.16640 | 0.00170 | 0.81838 | 998.5 | 7.9 | 992.3 | 9.4 | 1010 | 15 | 1010.0 | 15.0 | 1.8 | Single Age |
| SW02_37 | 727 | 13.70 | 0.67000 | 0.02000 | 0.08260 | 0.00240 | 0.62440 | 523.0 | 12.0 | 511.0 | 14.0 | 533 | 59 | 511.0 | 14.0 | 2.3 | Single Age |
| SW02_38 | 92 | 1.91 | 1.22000 | 0.01700 | 0.13270 | 0.00150 | 0.22645 | 809.4 | 7.9 | 802.9 | 8.5 | 841 | 33 | 802.9 | 8.5 | 0.8 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SW02_39 | 1793 | 6.38 | 0.61050 | 0.00680 | 0.07670 | 0.00110 | 0.86121 | 483.7 | 4.3 | 476.4 | 6.7 | 516 | 15 | 476.4 | 6.7 | 1.5 | Single Age |
| SW02_40 | 73.2 | 1.26 | 9.50200 | 0.09000 | 0.43640 | 0.00390 | 0.48553 | 2388.4 | 8.4 | 2334.0 | 17.0 | 2417 | 17 | 2417.0 | 17.0 | 3.4 | Single Age |
| SW02_41 | 188.9 | 4.81 | 1.61400 | 0.01800 | 0.16400 | 0.00170 | 0.41317 | 975.0 | 6.8 | 978.8 | 9.5 | 955 | 22 | 955.0 | 22.0 | 2.5 | Single Age |
| SW02_42 | 551 | 25.20 | 0.72000 | 0.02700 | 0.08890 | 0.00290 | 0.78780 | 550.0 | 16.0 | 549.0 | 17.0 | 555 | 50 | 549.0 | 17.0 | 0.2 | Rim |
| SW02_42 | 21.18 | 0.97 | 2.32200 | 0.06900 | 0.19910 | 0.00570 | 0.28183 | 1218.0 | 21.0 | 1170.0 | 31.0 | 1262 | 87 | 1262.0 | 87.0 | 7.3 | Core |
| SW02_43 | 192.4 | 0.67 | 1.40000 | 0.02600 | 0.14750 | 0.00320 | 0.78084 | 889.0 | 11.0 | 887.0 | 18.0 | 883 | 30 | 883.0 | 30.0 | 0.5 | Single Age |
| SW02_44 | 236 | 1.92 | 1.49500 | 0.02000 | 0.15310 | 0.00210 | 0.74049 | 927.6 | 8.2 | 918.0 | 12.0 | 957 | 19 | 957.0 | 19.0 | 4.1 | Single Age |
| SW02_45 | 462 | 2.13 | 3.55800 | 0.05800 | 0.26650 | 0.00450 | 0.84363 | 1540.0 | 13.0 | 1522.0 | 23.0 | 1579 | 17 | 1579.0 | 17.0 | 3.6 | Single Age |
| SW02_46 | 188 | 3.80 | 5.19000 | 0.04700 | 0.32920 | 0.00350 | 0.79182 | 1850.3 | 7.7 | 1834.0 | 17.0 | 1879 | 12 | 1879.0 | 12.0 | 2.4 | Single Age |
| SW02_47 | 439 | 2.25 | 0.81900 | 0.01100 | 0.09570 | 0.00130 | 0.70570 | 607.1 | 6.1 | 589.2 | 7.6 | 686 | 22 | 589.2 | 7.6 | 2.9 | Single Age |
| SW02_48 | 165 | 2.22 | 1.60500 | 0.02200 | 0.16030 | 0.00290 | 0.40844 | 973.2 | 8.0 | 958.0 | 16.0 | 1011 | 40 | 1011.0 | 40.0 | 5.2 | Single Age |
| SW02_49 | 286 | 3.17 | 5.75800 | 0.07800 | 0.32930 | 0.00510 | 0.85062 | 1939.0 | 12.0 | 1834.0 | 25.0 | 2064 | 14 | 2064.0 | 14.0 | 11.1 | Single Age |
| SW02_50 | 133.5 | 1.58 | 1.67200 | 0.02800 | 0.16160 | 0.00240 | 0.48170 | 999.0 | 11.0 | 965.0 | 13.0 | 1074 | 34 | 1074.0 | 34.0 | 10.1 | Single Age |
| SW02_51 | 1390 | 4.13 | 1.59700 | 0.03000 | 0.16150 | 0.00300 | 0.93093 | 968.0 | 12.0 | 965.0 | 17.0 | 985 | 13 | 985.0 | 13.0 | 2.0 | Single Age |
| SW02_52 | 255 | 1.23 | 2.23300 | 0.02700 | 0.20420 | 0.00290 | 0.78607 | 1192.0 | 8.6 | 1197.0 | 15.0 | 1195 | 16 | 1195.0 | 16.0 | 0.2 | Single Age |
| SW02_53 | 371 | 1.14 | 1.33900 | 0.01800 | 0.14560 | 0.00230 | 0.78269 | 862.3 | 7.7 | 878.0 | 13.0 | 845 | 20 | 845.0 | 13.0 | 1.8 | Single Age |
| SW02_55 | 100 | 1.28 | 1.67600 | 0.02100 | 0.16990 | 0.00250 | 0.62895 | 1001.3 | 8.5 | 1011.0 | 14.0 | 990 | 25 | 990.0 | 25.0 | 2.1 | Single Age |
| SW02_56 | 386 | 1.54 | 11.39000 | 0.13000 | 0.48280 | 0.00600 | 0.73877 | 2557.0 | 10.0 | 2539.0 | 26.0 | 2574 | 15 | 2574.0 | 15.0 | 1.4 | Single Age |
| SW02_57 | 411 | 47.80 | 1.60300 | 0.01700 | 0.16370 | 0.00160 | 0.74567 | 971.1 | 6.4 | 977.1 | 8.6 | 936 | 13 | 936.0 | 13.0 | 4.4 | Single Age |
| SW02_58 | 246 | 6.09 | 10.97800 | 0.08400 | 0.47900 | 0.00490 | 0.77166 | 2522.2 | 7.4 | 2522.0 | 21.0 | 2514 | 11 | 2514.0 | 11.0 | 0.3 | Single Age |
| SW02_59 | 58 | 0.79 | 2.86100 | 0.04200 | 0.23450 | 0.00370 | 0.53845 | 1371.0 | 11.0 | 1357.0 | 19.0 | 1391 | 28 | 1391.0 | 28.0 | 2.4 | Single Age |
| SW02_60 | 476 | 2.50 | 1.75400 | 0.02500 | 0.17630 | 0.00280 | 0.80857 | 1029.3 | 9.2 | 1046.0 | 15.0 | 973 | 17 | 973.0 | 17.0 | 7.5 | Single Age |
| SW02_61 | 649 | 5.07 | 4.94700 | 0.04800 | 0.32450 | 0.00350 | 0.80190 | 1810.7 | 8.0 | 1811.0 | 17.0 | 1805 | 11 | 1805.0 | 11.0 | 0.3 | Single Age |
| SW02_62 | 89.7 | 1.78 | 7.53000 | 0.15000 | 0.36450 | 0.00810 | 0.58802 | 2175.0 | 18.0 | 2003.0 | 38.0 | 2335 | 33 | 2335.0 | 33.0 | 14.2 | Single Age |
| SW02_63 | 536 | 1.46 | 7.56000 | 0.21000 | 0.39900 | 0.01200 | 0.86251 | 2179.0 | 25.0 | 2180.0 | 59.0 | 2163 | 26 | 2163.0 | 26.0 | 0.8 | Single Age |
| SW02_64 | 60.1 | 1.48 | 1.39700 | 0.02100 | 0.14780 | 0.00190 | 0.13407 | 889.2 | 9.3 | 888.0 | 11.0 | 866 | 40 | 866.0 | 40.0 | 2.5 | Single Age |
| SW02_65 | 85 | 1.19 | 1.23900 | 0.03500 | 0.13330 | 0.00380 | 0.61981 | 818.0 | 16.0 | 806.0 | 22.0 | 854 | 46 | 806.0 | 22.0 | 1.5 | Single Age |
| SW02_66 | 199.3 | 0.59 | 1.28700 | 0.01500 | 0.13810 | 0.00140 | 0.58608 | 840.5 | 6.9 | 833.7 | 7.8 | 834 | 20 | 833.7 | 7.8 | 0.8 | Single Age |
| SW02_67 | 1016 | 28.17 | 3.97600 | 0.06000 | 0.28890 | 0.00510 | 0.84321 | 1628.0 | 12.0 | 1635.0 | 26.0 | 1621 | 16 | 1621.0 | 16.0 | 0.9 | Single Age |
| SW02_68 | 1051 | 6.40 | 1.37000 | 0.02000 | 0.14560 | 0.00250 | 0.84390 | 875.4 | 8.4 | 876.0 | 14.0 | 878 | 16 | 878.0 | 16.0 | 0.2 | Single Age |
| SW02_69 | 139.9 | 2.07 | 1.38300 | 0.01800 | 0.14710 | 0.00150 | 0.19604 | 882.2 | 7.6 | 884.8 | 8.6 | 869 | 30 | 869.0 | 30.0 | 1.8 | Single Age |
| SW02_70 | 233 | 2.31 | 1.50800 | 0.02800 | 0.15630 | 0.00210 | 0.61618 | 929.3 | 8.8 | 936.0 | 12.0 | 910 | 26 | 910.0 | 26.0 | 2.9 | Single Age |
| SW02_71 | 236.5 | 1.16 | 1.57400 | 0.01900 | 0.16000 | 0.00170 | 0.62024 | 960.3 | 7.2 | 956.6 | 9.6 | 964 | 21 | 964.0 | 21.0 | 0.8 | Single Age |
| SW02_72 | 122 | 1.22 | 2.80400 | 0.03400 | 0.23840 | 0.00270 | 0.44662 | 1356.0 | 9.2 | 1378.0 | 14.0 | 1299 | 23 | 1299.0 | 23.0 | 6.1 | Single Age |
| SW02_73 | 184.2 | 0.69 | 8.32500 | 0.08200 | 0.38760 | 0.00410 | 0.74025 | 2267.5 | 9.2 | 2113.0 | 19.0 | 2405 | 14 | 2405.0 | 14.0 | 12.1 | Single Age |
| SW02_74 | 105 | 1.34 | 1.24500 | 0.01800 | 0.13330 | 0.00150 | 0.31667 | 821.5 | 8.4 | 806.5 | 8.6 | 855 | 33 | 806.5 | 8.6 | 1.8 | Single Age |
| SW02_75 | 490 | 50.10 | 0.78600 | 0.01300 | 0.09640 | 0.00140 | 0.46647 | 588.5 | 7.2 | 593.3 | 8.0 | 551 | 25 | 593.3 | 8.0 | 0.8 | Single Age |
| SW02_76 | 1078 | 21.60 | 0.61410 | 0.00480 | 0.07817 | 0.00066 | 0.65214 | 486.0 | 3.0 | 485.1 | 3.9 | 484 | 15 | 485.1 | 3.9 | 0.2 | Single Age |
| SW02_77 | 1043 | 4.73 | 1.69800 | 0.02500 | 0.17330 | 0.00290 | 0.82013 | 1006.9 | 9.3 | 1030.0 | 16.0 | 963 | 19 | 963.0 | 19.0 | 7.0 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SW02_78 | 520 | 2.68 | 1.28100 | 0.02000 | 0.13640 | 0.00220 | 0.70028 | 837.2 | 9.0 | 824.0 | 13.0 | 869 | 29 | 824.0 | 13.0 | 1.6 | Single Age |
| SW02_79 | 1230 | 6.20 | 1.40700 | 0.03900 | 0.14700 | 0.00380 | 0.90905 | 891.0 | 16.0 | 884.0 | 21.0 | 904 | 28 | 904.0 | 28.0 | 2.2 | Single Age |
| SW02_80 | 593 | 6.89 | 1.53800 | 0.01800 | 0.15910 | 0.00190 | 0.76595 | 945.4 | 7.1 | 952.0 | 11.0 | 934 | 17 | 934.0 | 17.0 | 1.9 | Single Age |
| SW02_81 | 572 | 3.30 | 1.96300 | 0.03300 | 0.18800 | 0.00390 | 0.72638 | 1102.0 | 11.0 | 1110.0 | 21.0 | 1096 | 23 | 1096.0 | 23.0 | 1.3 | Single Age |
| SW02_82 | 74.3 | 2.92 | 1.62600 | 0.02600 | 0.16550 | 0.00230 | 0.44666 | 979.5 | 9.9 | 987.0 | 13.0 | 944 | 33 | 944.0 | 33.0 | 4.6 | Single Age |
| SW02_83 | 134.1 | 1.66 | 6.40800 | 0.08600 | 0.29210 | 0.00420 | 0.78772 | 2034.0 | 12.0 | 1652.0 | 21.0 | 2449 | 15 | DISC | DISC | 32.5 | Single Age |
| SW02_84 | 364 | 1.70 | 1.37800 | 0.02100 | 0.14770 | 0.00260 | 0.69989 | 878.9 | 8.9 | 888.0 | 14.0 | 857 | 26 | 857.0 | 26.0 | 3.6 | Single Age |
| SW02_85 | 228.2 | 2.03 | 23.17000 | 0.16000 | 0.66810 | 0.00540 | 0.70591 | 3234.4 | 6.5 | 3298.0 | 21.0 | 3196 | 9 | 3196.3 | 9.2 | 3.2 | Single Age |
| SW02_86 | 274 | 0.68 | 1.61300 | 0.02100 | 0.16470 | 0.00240 | 0.73503 | 975.7 | 7.9 | 983.0 | 13.0 | 951 | 21 | 951.0 | 21.0 | 3.4 | Single Age |
| SW02_87 | 1446 | 5.91 | 0.65000 | 0.01000 | 0.08200 | 0.00140 | 0.83208 | 508.1 | 6.2 | 508.1 | 8.2 | 484 | 20 | 508.1 | 8.2 | 0.0 | Single Age |
| SW02_88 | 835 | 2.17 | 1.32300 | 0.01700 | 0.14340 | 0.00230 | 0.86112 | 855.2 | 7.5 | 864.0 | 13.0 | 831 | 16 | 831.0 | 13.0 | 1.0 | Single Age |
| SW02_89 | 480 | 27.00 | 4.96000 | 0.13000 | 0.32400 | 0.01400 | 0.63081 | 1812.0 | 23.0 | 1807.0 | 68.0 | 1781 | 39 | 1781.0 | 39.0 | 1.5 | Rim |
| SW02_89 | 258 | 1.92 | 12.27000 | 0.23000 | 0.52200 | 0.01200 | 0.84837 | 2624.0 | 18.0 | 2706.0 | 50.0 | 2533 | 23 | 2533.0 | 23.0 | 6.8 | Core |
| SW02_90 | 62 | 1.01 | 1.47400 | 0.02800 | 0.15480 | 0.00200 | 0.49987 | 922.0 | 11.0 | 928.0 | 11.0 | 873 | 35 | 873.0 | 35.0 | 6.3 | Single Age |
| SW02_91 | 106 | 3.44 | 16.19000 | 0.55000 | 0.58900 | 0.02400 | 0.61501 | 2886.0 | 33.0 | 2983.0 | 96.0 | 2799 | 54 | 2799.0 | 54.0 | 6.6 | Single Age |
| SW02_92 | 469 | 1.99 | 1.52900 | 0.01800 | 0.15660 | 0.00200 | 0.70617 | 941.8 | 7.3 | 938.0 | 11.0 | 908 | 20 | 908.0 | 20.0 | 3.3 | Single Age |
| SW02_93 | 384 | 20.03 | 1.69400 | 0.01400 | 0.16960 | 0.00170 | 0.49614 | 1006.6 | 5.2 | 1009.8 | 9.4 | 958 | 19 | 958.0 | 19.0 | 5.4 | Single Age |
| SW02_94 | 260.6 | 2.19 | 1.39400 | 0.02600 | 0.14570 | 0.00270 | 0.86979 | 888.0 | 12.0 | 877.0 | 15.0 | 896 | 22 | 896.0 | 22.0 | 2.1 | Single Age |
| SW02_95 | 163.3 | 0.69 | 1.30000 | 0.01700 | 0.13900 | 0.00180 | 0.53577 | 845.3 | 7.6 | 839.0 | 10.0 | 838 | 27 | 839.0 | 10.0 | 0.7 | Single Age |
| SW02_96 | 350 | 1.88 | 16.29000 | 0.30000 | 0.50470 | 0.00970 | 0.89133 | 2894.0 | 17.0 | 2632.0 | 42.0 | 3066 | 14 | 3066.0 | 14.0 | 14.2 | Single Age |
| SW02_97 | 385 | 2.01 | 2.12900 | 0.01700 | 0.19880 | 0.00150 | 0.43636 | 1158.0 | 5.4 | 1168.6 | 8.1 | 1121 | 17 | 1121.0 | 17.0 | 4.2 | Single Age |
| SW02_98 | 286 | 1.30 | 5.43900 | 0.05100 | 0.34430 | 0.00370 | 0.73308 | 1890.5 | 8.1 | 1907.0 | 18.0 | 1844 | 14 | 1844.0 | 14.0 | 3.4 | Single Age |
| SW02_99 | 268 | 4.41 | 0.95300 | 0.01300 | 0.10950 | 0.00140 | 0.49016 | 680.9 | 6.4 | 671.0 | 8.6 | 700 | 29 | 671.0 | 8.6 | 1.5 | Single Age |
| SW02_100 | 465 | 1.32 | 10.60600 | 0.09700 | 0.47130 | 0.00490 | 0.82842 | 2488.6 | 8.5 | 2488.0 | 21.0 | 2472 | 9 | 2472.2 | 9.0 | 0.6 | Single Age |
| SW02_101 | 637 | 2.58 | 1.74800 | 0.05200 | 0.17520 | 0.00620 | 0.93084 | 1025.0 | 19.0 | 1040.0 | 34.0 | 970 | 33 | 970.0 | 33.0 | 7.2 | Single Age |
| SW02_102 | 268.7 | 1.46 | 12.66000 | 0.16000 | 0.50610 | 0.00670 | 0.67747 | 2654.0 | 12.0 | 2639.0 | 29.0 | 2663 | 20 | 2663.0 | 20.0 | 0.9 | Single Age |
| SW02_103 | 144.7 | 1.50 | 7.98000 | 0.12000 | 0.39830 | 0.00570 | 0.72932 | 2227.0 | 13.0 | 2161.0 | 26.0 | 2269 | 19 | 2269.0 | 19.0 | 4.8 | Single Age |
| SW02_104 | 76.7 | 0.55 | 1.53700 | 0.03500 | 0.15760 | 0.00320 | 0.67452 | 945.0 | 14.0 | 943.0 | 18.0 | 949 | 37 | 949.0 | 37.0 | 0.6 | Single Age |
| SW02_105 | 145.9 | 5.00 | 1.18400 | 0.02000 | 0.12870 | 0.00200 | 0.37869 | 792.5 | 9.2 | 782.0 | 12.0 | 822 | 37 | 782.0 | 12.0 | 1.3 | Single Age |
| SW02_106 | 394 | 2.03 | 8.18900 | 0.05900 | 0.37280 | 0.00260 | 0.71164 | 2252.5 | 6.6 | 2042.0 | 12.0 | 2451 | 8 | 2451.3 | 8.3 | 16.7 | Single Age |
| SW02_107 | 922 | 1.45 | 1.71300 | 0.02100 | 0.17200 | 0.00230 | 0.82860 | 1012.8 | 7.8 | 1023.0 | 13.0 | 994 | 15 | 994.0 | 15.0 | 2.9 | Single Age |
| SW02_108 | 226 | 3.05 | 1.46600 | 0.02900 | 0.15490 | 0.00360 | 0.61511 | 918.0 | 11.0 | 928.0 | 20.0 | 910 | 40 | 910.0 | 40.0 | 2.0 | Rim |
| SW02_108 | 456 | 11.46 | 4.29000 | 0.19000 | 0.29660 | 0.00910 | 0.93338 | 1689.0 | 36.0 | 1674.0 | 45.0 | 1751 | 27 | 1751.0 | 27.0 | 4.4 | Core |
| SW02_109 | 253 | 1.37 | 1.30900 | 0.02700 | 0.13980 | 0.00220 | 0.41074 | 849.0 | 12.0 | 844.0 | 12.0 | 882 | 38 | 844.0 | 12.0 | 0.6 | Single Age |
| SW02_110 | 109.8 | 0.91 | 1.04500 | 0.02900 | 0.11780 | 0.00280 | 0.80417 | 726.0 | 15.0 | 718.0 | 16.0 | 778 | 32 | 718.0 | 16.0 | 1.1 | Single Age |
| SW02_111 | 408 | 21.00 | 1.59800 | 0.02700 | 0.16300 | 0.00300 | 0.72805 | 970.0 | 10.0 | 973.0 | 17.0 | 984 | 26 | 984.0 | 26.0 | 1.1 | Single Age |
| SW02_112 | 189.8 | 2.01 | 2.74000 | 0.10000 | 0.22710 | 0.00950 | 0.82294 | 1337.0 | 27.0 | 1318.0 | 50.0 | 1391 | 49 | 1391.0 | 49.0 | 5.2 | Single Age |
| SW02_113 | 738 | 10.14 | 1.47900 | 0.01700 | 0.15630 | 0.00210 | 0.68222 | 921.3 | 6.9 | 936.0 | 12.0 | 908 | 20 | 908.0 | 20.0 | 3.1 | Single Age |
| SW02_114 | 818 | 5.05 | 0.77470 | 0.00950 | 0.09640 | 0.00120 | 0.75144 | 582.9 | 5.5 | 593.2 | 7.1 | 556 | 21 | 593.2 | 7.1 | 1.8 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SW02_115 | 529 | 8.08 | 5.34700 | 0.07700 | 0.33930 | 0.00440 | 0.69316 | 1876.0 | 12.0 | 1886.0 | 20.0 | 1873 | 16 | 1873.0 | 16.0 | 0.7 | Single Age |
| SW02_116 | 1241 | 7.30 | 1.21000 | 0.01100 | 0.13380 | 0.00130 | 0.74702 | 805.1 | 5.2 | 809.4 | 7.6 | 799 | 15 | 809.4 | 7.6 | 0.5 | Single Age |
| SW02_117 | 229 | 1.66 | 8.81000 | 0.11000 | 0.41610 | 0.00620 | 0.86398 | 2318.0 | 12.0 | 2245.0 | 28.0 | 2393 | 15 | 2393.0 | 15.0 | 6.2 | Single Age |
| SW02_118 | 850 | 17.90 | 1.50400 | 0.02100 | 0.15530 | 0.00190 | 0.76427 | 931.5 | 8.4 | 930.0 | 10.0 | 948 | 18 | 948.0 | 18.0 | 1.9 | Single Age |
| SW02_119 | 1122 | 41.90 | 2.11000 | 0.03000 | 0.19300 | 0.00260 | 0.61748 | 1151.7 | 9.8 | 1138.0 | 14.0 | 1189 | 31 | 1189.0 | 31.0 | 4.3 | Rim |
| SW02_119 | 239 | 2.60 | 2.61100 | 0.03400 | 0.22350 | 0.00260 | 0.42860 | 1303.3 | 9.5 | 1300.0 | 14.0 | 1311 | 26 | 1311.0 | 26.0 | 0.8 | Core |
| SW02_120 | 193 | 1.49 | 2.04400 | 0.02500 | 0.19670 | 0.00180 | 0.63258 | 1129.6 | 8.3 | 1157.2 | 9.5 | 1107 | 19 | 1107.0 | 19.0 | 4.5 | Single Age |
| KNS01_1 | 241 | 1.28 | 1.72500 | 0.01200 | 0.17070 | 0.00160 | 0.32914 | 1018.5 | 4.3 | 1016.1 | 8.8 | 1026 | 19 | 1026.0 | 19.0 | 1.0 | Single Age |
| KNS01_2 | 158.4 | 0.90 | 4.80300 | 0.03500 | 0.30750 | 0.00250 | 0.63859 | 1785.1 | 6.1 | 1728.0 | 12.0 | 1844 | 12 | 1844.0 | 12.0 | 6.3 | Single Age |
| KNS01_3 | 82.4 | 0.32 | 0.62100 | 0.01000 | 0.07833 | 0.00096 | 0.10878 | 490.0 | 6.4 | 486.1 | 5.7 | 520 | 49 | 486.1 | 5.7 | 0.8 | Single Age |
| KNS01_4 | 1220 | 22.80 | 4.00000 | 0.10000 | 0.28650 | 0.00790 | 0.75406 | 1636.0 | 19.0 | 1623.0 | 39.0 | 1659 | 35 | 1659.0 | 35.0 | 2.2 | Rim |
| KNS01_4 | 280 | 6.46 | 4.66500 | 0.05700 | 0.31490 | 0.00330 | 0.84279 | 1761.0 | 10.0 | 1765.0 | 16.0 | 1755 | 14 | 1755.0 | 14.0 | 0.6 | Core |
| KNS01_5 | 143.3 | 0.55 | 2.19000 | 0.03200 | 0.20020 | 0.00250 | 0.70114 | 1177.0 | 10.0 | 1176.0 | 13.0 | 1190 | 23 | 1190.0 | 23.0 | 1.2 | Single Age |
| KNS01_6 | 162 | 1.49 | 0.68800 | 0.00900 | 0.08651 | 0.00089 | 0.32360 | 532.0 | 5.3 | 534.8 | 5.3 | 537 | 27 | 534.8 | 5.3 | 0.5 | Single Age |
| KNS01_7 | 643 | 3.43 | 0.79500 | 0.01300 | 0.09620 | 0.00150 | 0.74562 | 593.8 | 7.1 | 591.8 | 8.9 | 626 | 23 | 591.8 | 8.9 | 0.3 | Single Age |
| KNS01_8 | 132.2 | 0.96 | 11.35700 | 0.09200 | 0.45310 | 0.00390 | 0.62915 | 2552.4 | 7.6 | 2409.0 | 18.0 | 2669 | 11 | 2669.0 | 11.0 | 9.7 | Single Age |
| KNS01_9 | 1291 | 18.70 | 1.01800 | 0.02700 | 0.11340 | 0.00270 | 0.84532 | 713.0 | 14.0 | 692.0 | 16.0 | 790 | 23 | 692.0 | 16.0 | 2.9 | Single Age |
| KNS01_10 | 426 | 5.60 | 1.28700 | 0.01700 | 0.13790 | 0.00250 | 0.76928 | 840.0 | 7.4 | 833.0 | 14.0 | 870 | 22 | 833.0 | 14.0 | 0.8 | Single Age |
| KNS01_11 | 642 | 2.78 | 10.07000 | 0.11000 | 0.44360 | 0.00500 | 0.87271 | 2440.4 | 9.6 | 2366.0 | 22.0 | 2510 | 8 | 2509.6 | 8.4 | 5.7 | Single Age |
| KNS01_12 | 109 | 0.92 | 1.32800 | 0.01800 | 0.14170 | 0.00130 | 0.24707 | 857.4 | 7.8 | 855.1 | 7.8 | 870 | 30 | 870.0 | 30.0 | 1.7 | Single Age |
| KNS01_13 | 57.9 | 0.61 | 1.27900 | 0.04100 | 0.13160 | 0.00230 | 0.45553 | 835.0 | 18.0 | 797.0 | 13.0 | 910 | 52 | 797.0 | 13.0 | 4.6 | Single Age |
| KNS01_14 | 1010 | 2.47 | 0.76300 | 0.01000 | 0.08690 | 0.00130 | 0.54595 | 575.6 | 5.9 | 536.9 | 8.0 | 743 | 30 | 536.9 | 8.0 | 6.7 | Single Age |
| KNS01_15 | 82.1 | 0.41 | 1.83900 | 0.03000 | 0.16550 | 0.00160 | 0.28232 | 1059.0 | 11.0 | 987.1 | 8.8 | 1219 | 34 | 1219.0 | 34.0 | 19.0 | Single Age |
| KNS01_16 | 40.6 | 0.30 | 0.67000 | 0.02200 | 0.08170 | 0.00210 | 0.16261 | 520.0 | 13.0 | 506.0 | 13.0 | 571 | 76 | 506.0 | 13.0 | 2.7 | Single Age |
| KNS01_17 | 58 | 1.23 | 12.93000 | 0.15000 | 0.47110 | 0.00550 | 0.77115 | 2674.0 | 11.0 | 2488.0 | 24.0 | 2826 | 13 | 2826.0 | 13.0 | 12.0 | Single Age |
| KNS01_18 | 146 | 0.69 | 1.11400 | 0.01600 | 0.12130 | 0.00130 | 0.50350 | 760.3 | 7.4 | 737.9 | 7.4 | 821 | 25 | 737.9 | 7.4 | 2.9 | Single Age |
| KNS01_19 | 248 | 0.44 | 1.38800 | 0.01400 | 0.14600 | 0.00110 | 0.55944 | 884.4 | 5.8 | 878.5 | 6.4 | 893 | 17 | 893.0 | 17.0 | 1.6 | Single Age |
| KNS01_20 | 679 | 1.43 | 2.54000 | 0.03200 | 0.21980 | 0.00300 | 0.89241 | 1282.7 | 9.2 | 1280.0 | 16.0 | 1272 | 13 | 1272.0 | 13.0 | 0.6 | Single Age |
| KNS01_21 | 200 | 0.93 | 4.41700 | 0.03300 | 0.30500 | 0.00240 | 0.54815 | 1715.2 | 6.1 | 1716.0 | 12.0 | 1715 | 14 | 1715.0 | 14.0 | 0.1 | Single Age |
| KNS01_22 | 325 | 1.73 | 1.61100 | 0.01200 | 0.16240 | 0.00130 | 0.58714 | 974.4 | 4.7 | 970.2 | 7.4 | 988 | 14 | 988.0 | 14.0 | 1.8 | Single Age |
| KNS01_23 | 208.7 | 0.59 | 1.02800 | 0.02800 | 0.11180 | 0.00180 | 0.75764 | 718.0 | 14.0 | 683.0 | 10.0 | 808 | 34 | 683.0 | 10.0 | 4.9 | Single Age |
| KNS01_24 | 89.4 | 0.52 | 1.74200 | 0.02300 | 0.17130 | 0.00180 | 0.58642 | 1024.5 | 8.8 | 1019.4 | 9.7 | 1035 | 25 | 1035.0 | 25.0 | 1.5 | Single Age |
| KNS01_25 | 248.9 | 6.03 | 2.21100 | 0.01400 | 0.20060 | 0.00150 | 0.55897 | 1184.3 | 4.5 | 1178.6 | 8.1 | 1198 | 13 | 1198.0 | 13.0 | 1.6 | Single Age |
| KNS01_26 | 401 | 7.16 | 1.30900 | 0.01500 | 0.14040 | 0.00180 | 0.53915 | 849.4 | 6.7 | 847.0 | 10.0 | 849 | 25 | 847.0 | 10.0 | 0.3 | Single Age |
| KNS01_27 | 131.4 | 0.96 | 2.00300 | 0.01500 | 0.18900 | 0.00140 | 0.26620 | 1117.1 | 5.2 | 1116.0 | 7.5 | 1111 | 18 | 1111.0 | 18.0 | 0.5 | Single Age |
| KNS01_28 | 302 | 2.00 | 4.46800 | 0.03900 | 0.30570 | 0.00260 | 0.61428 | 1724.8 | 7.2 | 1720.0 | 13.0 | 1736 | 14 | 1736.0 | 14.0 | 0.9 | Single Age |
| KNS01_29 | 421 | 2.89 | 1.41900 | 0.02400 | 0.14460 | 0.00210 | 0.80475 | 896.0 | 10.0 | 871.0 | 12.0 | 955 | 21 | 955.0 | 21.0 | 8.8 | Single Age |
| KNS01_30 | 1031 | 5.70 | 1.38700 | 0.03500 | 0.14540 | 0.00440 | 0.85470 | 883.0 | 15.0 | 875.0 | 25.0 | 921 | 35 | 921.0 | 35.0 | 5.0 | Single Age |
| KNS01_31 | 217.6 | 1.10 | 10.17700 | 0.06900 | 0.44860 | 0.00390 | 0.77555 | 2450.7 | 6.3 | 2389.0 | 18.0 | 2506 | 9 | 2505.6 | 9.1 | 4.7 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KNS01_32 | 22.8 | 0.88 | 0.13800 | 0.01400 | 0.01861 | 0.00079 | 0.09771 | 130.0 | 12.0 | 118.8 | 5.0 | 330 | 230 | 118.8 | 5.0 | 8.6 | Single Age |
| KNS01_33 | 305.2 | 8.30 | 4.44800 | 0.05700 | 0.29390 | 0.00410 | 0.81098 | 1721.0 | 11.0 | 1660.0 | 21.0 | 1791 | 14 | 1791.0 | 14.0 | 7.3 | Single Age |
| KNS01_34 | 194 | 1.16 | 6.31000 | 0.06700 | 0.36690 | 0.00390 | 0.59778 | 2021.5 | 9.7 | 2015.0 | 18.0 | 2030 | 17 | 2030.0 | 17.0 | 0.7 | Single Age |
| KNS01_35 | 614 | 8.24 | 0.90600 | 0.01100 | 0.10680 | 0.00110 | 0.68372 | 654.4 | 6.0 | 653.9 | 6.2 | 657 | 20 | 653.9 | 6.2 | 0.1 | Single Age |
| KNS01_36 | 218 | 0.72 | 1.00000 | 0.01300 | 0.10970 | 0.00110 | 0.49616 | 703.6 | 6.8 | 671.2 | 6.3 | 799 | 24 | 671.2 | 6.3 | 4.6 | Single Age |
| KNS01_37 | 634 | 8.67 | 1.53100 | 0.01600 | 0.15640 | 0.00120 | 0.37274 | 942.7 | 6.5 | 936.9 | 6.6 | 971 | 24 | 971.0 | 24.0 | 3.5 | Rim |
| KNS01_37 | 368 | 2.50 | 1.72400 | 0.03400 | 0.16990 | 0.00390 | 0.90846 | 1017.0 | 12.0 | 1011.0 | 21.0 | 1032 | 17 | 1032.0 | 17.0 | 2.0 | Core |
| KNS01_38 | 67.5 | 0.37 | 4.29500 | 0.05900 | 0.29750 | 0.00350 | 0.41986 | 1693.0 | 11.0 | 1678.0 | 17.0 | 1715 | 27 | 1715.0 | 27.0 | 2.2 | Single Age |
| KNS01_39 | 312 | 1.45 | 2.05100 | 0.02200 | 0.18580 | 0.00200 | 0.70803 | 1132.4 | 7.2 | 1098.0 | 11.0 | 1203 | 17 | 1203.0 | 17.0 | 8.7 | Single Age |
| KNS01_40 | 260 | 4.30 | 1.63500 | 0.01900 | 0.16560 | 0.00160 | 0.77786 | 984.1 | 7.2 | 987.8 | 8.7 | 967 | 15 | 967.0 | 15.0 | 2.2 | Single Age |
| KNS01_41 | 436 | 2.40 | 1.55300 | 0.01800 | 0.15820 | 0.00150 | 0.69716 | 951.4 | 7.0 | 946.7 | 8.5 | 966 | 15 | 966.0 | 15.0 | 2.0 | Single Age |
| KNS01_42 | 160.6 | 1.06 | 5.90300 | 0.09400 | 0.30250 | 0.00380 | 0.84528 | 1960.0 | 14.0 | 1703.0 | 19.0 | 2243 | 15 | 2243.0 | 15.0 | 24.1 | Single Age |
| KNS01_43 | 147 | 3.67 | 0.85300 | 0.01100 | 0.10286 | 0.00098 | 0.34395 | 625.9 | 5.8 | 631.1 | 5.7 | 592 | 28 | 631.1 | 5.7 | 0.8 | Single Age |
| KNS01_44 | 472 | 2.04 | 34.76000 | 0.47000 | 0.73500 | 0.01100 | 0.87622 | 3631.0 | 13.0 | 3552.0 | 39.0 | 3677 | 19 | 3677.0 | 19.0 | 3.4 | Single Age |
| KNS01_45 | 424 | 2.70 | 4.59700 | 0.07700 | 0.31570 | 0.00610 | 0.50770 | 1750.0 | 13.0 | 1768.0 | 30.0 | 1733 | 34 | 1733.0 | 34.0 | 2.0 | Single Age |
| KNS01_46 | 535 | 1.86 | 1.55100 | 0.03400 | 0.15800 | 0.00280 | 0.82924 | 951.0 | 14.0 | 946.0 | 16.0 | 983 | 26 | 983.0 | 26.0 | 3.8 | Single Age |
| KNS01_47 | 126.7 | 0.86 | 1.46200 | 0.02100 | 0.15410 | 0.00210 | 0.44654 | 914.6 | 8.8 | 924.0 | 12.0 | 881 | 32 | 881.0 | 32.0 | 4.9 | Single Age |
| KNS01_48 | 353 | 0.54 | 1.66000 | 0.01300 | 0.16640 | 0.00120 | 0.55094 | 993.0 | 5.0 | 991.9 | 6.7 | 993 | 14 | 993.0 | 14.0 | 0.1 | Single Age |
| KNS01_49 | 246 | 0.36 | 9.72100 | 0.08200 | 0.43850 | 0.00410 | 0.80561 | 2408.1 | 7.8 | 2343.0 | 18.0 | 2464 | 9 | 2463.5 | 9.4 | 4.9 | Single Age |
| KNS01_50 | 463 | 2.11 | 9.75000 | 0.19000 | 0.45140 | 0.00740 | 0.84305 | 2413.0 | 17.0 | 2401.0 | 33.0 | 2433 | 15 | 2433.0 | 15.0 | 1.3 | Single Age |
| KNS01_51 | 182 | 1.28 | 6.50500 | 0.09800 | 0.37090 | 0.00620 | 0.77714 | 2048.0 | 13.0 | 2033.0 | 29.0 | 2060 | 17 | 2060.0 | 17.0 | 1.3 | Single Age |
| KNS01_52 | 289.5 | 1.33 | 1.71600 | 0.01000 | 0.17500 | 0.00110 | 0.19218 | 1014.4 | 3.8 | 1039.6 | 6.0 | 959 | 16 | 959.0 | 16.0 | 8.4 | Single Age |
| KNS01_53 | 212.8 | 1.13 | 25.52000 | 0.26000 | 0.60830 | 0.00660 | 0.81741 | 3329.2 | 9.5 | 3063.0 | 26.0 | 3497 | 10 | 3496.8 | 9.6 | 12.4 | Single Age |
| KNS01_54 | 44.6 | 0.72 | 2.47500 | 0.05000 | 0.21630 | 0.00380 | 0.53915 | 1264.0 | 14.0 | 1262.0 | 20.0 | 1283 | 40 | 1283.0 | 40.0 | 1.6 | Single Age |
| KNS01_55 | 276 | 0.62 | 0.67350 | 0.00870 | 0.08393 | 0.00059 | 0.54748 | 522.5 | 5.3 | 519.5 | 3.5 | 553 | 24 | 519.5 | 3.5 | 0.6 | Single Age |
| KNS01_56 | 109.8 | 2.01 | 1.50400 | 0.01800 | 0.15330 | 0.00230 | 0.21605 | 931.9 | 7.3 | 919.0 | 13.0 | 974 | 38 | 974.0 | 38.0 | 5.6 | Single Age |
| KNS01_57 | 307 | 0.81 | 1.03200 | 0.01500 | 0.11380 | 0.00120 | 0.72810 | 719.7 | 7.4 | 695.0 | 7.1 | 800 | 22 | 695.0 | 7.1 | 3.4 | Single Age |
| KNS01_58 | 450 | 4.28 | 1.42200 | 0.01100 | 0.14970 | 0.00120 | 0.61194 | 898.2 | 4.5 | 900.3 | 6.9 | 890 | 15 | 890.0 | 15.0 | 1.2 | Single Age |
| KNS01_59 | 110.1 | 1.07 | 10.46000 | 0.08400 | 0.45580 | 0.00350 | 0.56795 | 2476.9 | 7.3 | 2421.0 | 15.0 | 2519 | 13 | 2519.0 | 13.0 | 3.9 | Single Age |
| KNS01_60 | 190 | 0.97 | 33.44000 | 0.32000 | 0.74690 | 0.00940 | 0.74882 | 3593.4 | 9.4 | 3595.0 | 34.0 | 3594 | 16 | 3594.0 | 16.0 | 0.0 | Single Age |
| KNS01_61 | 26.6 | 0.26 | 0.64300 | 0.02500 | 0.07890 | 0.00160 | 0.06297 | 506.0 | 15.0 | 489.6 | 9.4 | 560 | 84 | 489.6 | 9.4 | 3.2 | Single Age |
| KNS01_62 | 229.8 | 1.17 | 1.22100 | 0.01400 | 0.13290 | 0.00120 | 0.41631 | 809.6 | 6.5 | 805.0 | 6.8 | 811 | 22 | 805.0 | 6.8 | 0.6 | Single Age |
| KNS01_63 | 89.1 | 1.48 | 24.80000 | 0.29000 | 0.66100 | 0.01000 | 0.77181 | 3300.0 | 12.0 | 3272.0 | 39.0 | 3314 | 17 | 3314.0 | 17.0 | 1.3 | Single Age |
| KNS01_64 | 241 | 1.71 | 1.55200 | 0.03100 | 0.15100 | 0.00190 | 0.46077 | 950.0 | 12.0 | 906.0 | 11.0 | 1058 | 30 | 1058.0 | 30.0 | 14.4 | Single Age |
| KNS01_65 | 140.1 | 1.49 | 1.28400 | 0.01600 | 0.13800 | 0.00160 | 0.15010 | 838.1 | 7.0 | 834.2 | 9.0 | 855 | 28 | 834.2 | 9.0 | 0.5 | Single Age |
| KNS01_66 | 193 | 1.23 | 1.30700 | 0.01900 | 0.13940 | 0.00190 | 0.62405 | 848.4 | 8.5 | 841.0 | 11.0 | 855 | 26 | 841.0 | 11.0 | 0.9 | Single Age |
| KNS01_67 | 49.7 | 0.27 | 0.68400 | 0.03000 | 0.08440 | 0.00230 | 0.33121 | 528.0 | 18.0 | 522.0 | 14.0 | 533 | 79 | 522.0 | 14.0 | 1.1 | Single Age |
| KNS01_68 | 586 | 1.31 | 1.31200 | 0.01300 | 0.14160 | 0.00120 | 0.80712 | 850.8 | 5.6 | 853.8 | 7.0 | 839 | 11 | 839.0 | 7.0 | 0.4 | Single Age |
| KNS01_69 | 406 | 0.66 | 1.11890 | 0.00880 | 0.12520 | 0.00110 | 0.67268 | 762.3 | 4.2 | 760.6 | 6.3 | 770 | 15 | 760.6 | 6.3 | 0.2 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KNS01_70 | 322 | 1.72 | 1.62900 | 0.01600 | 0.16490 | 0.00140 | 0.45328 | 981.9 | 6.2 | 983.9 | 7.8 | 978 | 18 | 978.0 | 18.0 | 0.6 | Single Age |
| KNS01_72 | 255.4 | 2.82 | 7.27000 | 0.21000 | 0.33160 | 0.00780 | 0.94041 | 2141.0 | 26.0 | 1844.0 | 38.0 | 2421 | 17 | 2421.0 | 17.0 | 23.8 | Single Age |
| KNS01_73 | 496 | 2.14 | 10.72000 | 0.15000 | 0.46910 | 0.00710 | 0.72584 | 2498.0 | 13.0 | 2479.0 | 31.0 | 2506 | 20 | 2506.0 | 20.0 | 1.1 | Single Age |
| KNS01_74 | 290.9 | 1.14 | 1.28900 | 0.01600 | 0.13910 | 0.00150 | 0.61754 | 840.5 | 6.9 | 839.6 | 8.5 | 819 | 19 | 839.6 | 8.5 | 0.1 | Single Age |
| KNS01_75 | 2.12 | 0.18 | 57.00000 | 2.40000 | 0.56600 | 0.02300 | 0.85587 | 4112.0 | 44.0 | 2879.0 | 92.0 | 4786 | 35 | DISC | DISC | 39.8 | Single Age |
| KNS01_76 | 244 | 1.93 | 1.41300 | 0.01400 | 0.14460 | 0.00110 | 0.60086 | 894.2 | 5.7 | 870.5 | 6.3 | 939 | 16 | 939.0 | 16.0 | 7.3 | Single Age |
| KNS01_77 | 292 | 1.45 | 1.84900 | 0.01600 | 0.17710 | 0.00150 | 0.50997 | 1063.3 | 5.6 | 1051.1 | 8.1 | 1084 | 17 | 1084.0 | 17.0 | 3.0 | Single Age |
| KNS01_78 | 225.6 | 2.89 | 1.53900 | 0.02500 | 0.15740 | 0.00240 | 0.60820 | 947.1 | 9.6 | 942.0 | 13.0 | 957 | 28 | 957.0 | 28.0 | 1.6 | Single Age |
| KNS01_79 | 179.4 | 1.28 | 5.41400 | 0.04600 | 0.33610 | 0.00260 | 0.59117 | 1886.6 | 7.3 | 1867.0 | 13.0 | 1906 | 13 | 1906.0 | 13.0 | 2.0 | Single Age |
| KNS01_80 | 419 | 3.60 | 1.71800 | 0.01700 | 0.17120 | 0.00180 | 0.74047 | 1014.9 | 6.5 | 1019.9 | 9.7 | 1007 | 14 | 1007.0 | 14.0 | 1.3 | Single Age |
| KNS01_81 | 145 | 0.81 | 1.85100 | 0.03800 | 0.17760 | 0.00350 | 0.53998 | 1063.0 | 14.0 | 1054.0 | 19.0 | 1078 | 40 | 1078.0 | 40.0 | 2.2 | Single Age |
| KNS01_82 | 165.7 | 1.11 | 0.91500 | 0.01500 | 0.10680 | 0.00140 | 0.31940 | 659.7 | 7.9 | 654.2 | 8.3 | 703 | 42 | 654.2 | 8.3 | 0.8 | Single Age |
| KNS01_83 | 100.4 | 0.60 | 0.67900 | 0.01600 | 0.08370 | 0.00120 | 0.38660 | 525.4 | 9.6 | 518.3 | 6.9 | 533 | 47 | 518.3 | 6.9 | 1.4 | Single Age |
| KNS01_85 | 263.9 | 1.53 | 3.23000 | 0.03200 | 0.25500 | 0.00220 | 0.74637 | 1463.9 | 7.7 | 1464.0 | 11.0 | 1458 | 13 | 1458.0 | 13.0 | 0.4 | Single Age |
| KNS01_86 | 806 | 1.08 | 1.13800 | 0.03300 | 0.11170 | 0.00380 | 0.69534 | 769.0 | 16.0 | 682.0 | 22.0 | 1044 | 20 | DISC | DISC | 11.3 | Single Age |
| KNS01_87 | 676 | 0.85 | 1.27200 | 0.01400 | 0.13690 | 0.00200 | 0.55385 | 833.0 | 6.3 | 827.0 | 12.0 | 856 | 32 | 827.0 | 12.0 | 0.7 | Single Age |
| KNS01_88 | 1756 | 36.10 | 1.51800 | 0.02100 | 0.15070 | 0.00760 | 0.73872 | 937.5 | 8.4 | 905.0 | 43.0 | 1011 | 83 | 1011.0 | 83.0 | 10.5 | Rim |
| KNS01_88 | 266 | 1.78 | 4.46600 | 0.06300 | 0.30460 | 0.00480 | 0.63181 | 1724.0 | 12.0 | 1714.0 | 24.0 | 1745 | 23 | 1745.0 | 23.0 | 1.8 | Core |
| KNS01_89 | 59.2 | 0.29 | 0.86300 | 0.02600 | 0.08820 | 0.00120 | 0.36611 | 630.0 | 14.0 | 544.7 | 7.1 | 936 | 55 | DISC | DISC | 13.5 | Single Age |
| KNS01_90 | 73.8 | 0.61 | 4.29500 | 0.04700 | 0.29480 | 0.00260 | 0.39432 | 1693.0 | 8.7 | 1665.0 | 13.0 | 1723 | 18 | 1723.0 | 18.0 | 3.4 | Single Age |
| KNS01_91 | 104 | 1.01 | 6.43900 | 0.06500 | 0.36800 | 0.00410 | 0.53318 | 2037.3 | 8.8 | 2020.0 | 19.0 | 2055 | 18 | 2055.0 | 18.0 | 1.7 | Single Age |
| KNS01_92 | 480 | 1.89 | 1.54600 | 0.01400 | 0.15540 | 0.00130 | 0.72437 | 948.6 | 5.6 | 931.3 | 7.2 | 986 | 13 | 986.0 | 13.0 | 5.5 | Single Age |
| KNS01_93 | 274.5 | 0.65 | 1.09400 | 0.01000 | 0.12280 | 0.00120 | 0.50380 | 750.3 | 4.8 | 746.9 | 6.6 | 750 | 19 | 746.9 | 6.6 | 0.5 | Single Age |
| KNS01_94 | 115 | 1.31 | 0.86800 | 0.01300 | 0.10300 | 0.00110 | 0.32569 | 635.0 | 7.4 | 631.7 | 6.4 | 641 | 35 | 631.7 | 6.4 | 0.5 | Single Age |
| KNS01_95 | 69.7 | 1.13 | 6.51400 | 0.06800 | 0.34660 | 0.00340 | 0.71538 | 2047.0 | 9.1 | 1921.0 | 17.0 | 2165 | 16 | 2165.0 | 16.0 | 11.3 | Single Age |
| KNS01_96 | 65.5 | 0.45 | 0.66400 | 0.01200 | 0.08326 | 0.00094 | 0.13013 | 517.3 | 7.4 | 515.5 | 5.6 | 522 | 45 | 515.5 | 5.6 | 0.3 | Single Age |
| KNS01_98 | 128.3 | 0.62 | 2.06400 | 0.02200 | 0.18670 | 0.00170 | 0.46276 | 1137.5 | 7.2 | 1103.4 | 9.0 | 1193 | 20 | 1193.0 | 20.0 | 7.5 | Single Age |
| KNS01_99 | 427 | 1.22 | 12.95700 | 0.06300 | 0.50580 | 0.00300 | 0.65345 | 2676.9 | 4.7 | 2638.0 | 13.0 | 2705 | 7 | 2704.9 | 7.2 | 2.5 | Single Age |
| KNS01_100 | 268.7 | 1.07 | 1.67300 | 0.03500 | 0.16840 | 0.00400 | 0.53917 | 1000.0 | 14.0 | 1003.0 | 22.0 | 1013 | 37 | 1013.0 | 37.0 | 1.0 | Single Age |
| KNS01_101 | 65.3 | 1.37 | 1.10300 | 0.03000 | 0.12030 | 0.00340 | 0.21775 | 754.0 | 15.0 | 732.0 | 20.0 | 800 | 68 | 732.0 | 20.0 | 2.9 | Single Age |
| KNS01_102 | 357 | 2.02 | 1.41400 | 0.01500 | 0.14890 | 0.00150 | 0.78266 | 894.3 | 6.1 | 894.5 | 8.3 | 889 | 14 | 889.0 | 14.0 | 0.6 | Single Age |
| KNS01_103 | 105.8 | 0.36 | 1.65900 | 0.03500 | 0.16770 | 0.00250 | 0.17171 | 993.0 | 13.0 | 999.0 | 14.0 | 1003 | 47 | 1003.0 | 47.0 | 0.4 | Rim |
| KNS01_103 | 105.1 | 0.42 | 2.10200 | 0.04400 | 0.19390 | 0.00400 | 0.45357 | 1149.0 | 14.0 | 1142.0 | 22.0 | 1161 | 40 | 1161.0 | 40.0 | 1.6 | Core |
| KNS01_104 | 508 | 11.90 | 1.20500 | 0.01100 | 0.13190 | 0.00100 | 0.73113 | 802.7 | 4.9 | 798.7 | 5.7 | 807 | 13 | 798.7 | 5.7 | 0.5 | Single Age |
| KNS01_105 | 659 | 1.46 | 4.63900 | 0.05400 | 0.31410 | 0.00430 | 0.65508 | 1758.0 | 10.0 | 1761.0 | 21.0 | 1758 | 20 | 1758.0 | 20.0 | 0.2 | Single Age |
| KNS01_107 | 118.5 | 0.70 | 2.31300 | 0.02600 | 0.20940 | 0.00230 | 0.51314 | 1215.9 | 8.0 | 1225.0 | 12.0 | 1190 | 24 | 1190.0 | 24.0 | 2.9 | Single Age |
| KNS01_108 | 151 | 1.58 | 10.47000 | 0.07700 | 0.46790 | 0.00420 | 0.66321 | 2477.7 | 6.7 | 2474.0 | 18.0 | 2479 | 11 | 2479.0 | 11.0 | 0.2 | Single Age |
| KNS01_109 | 425 | 1.96 | 0.78000 | 0.01200 | 0.09550 | 0.00130 | 0.14016 | 587.3 | 6.5 | 588.0 | 7.8 | 587 | 42 | 588.0 | 7.8 | 0.1 | Rim |
| KNS01_109 | 255.7 | 1.58 | 0.91100 | 0.01700 | 0.10520 | 0.00180 | 0.73148 | 657.2 | 9.3 | 645.0 | 11.0 | 718 | 30 | 645.0 | 11.0 | 1.9 | Core |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KNS01_110 | 100.6 | 0.84 | 0.30630 | 0.00800 | 0.04199 | 0.00057 | 0.07336 | 270.9 | 6.2 | 265.1 | 3.5 | 328 | 62 | 265.1 | 3.5 | 2.1 | Single Age |
| KNS01_111 | 89.2 | 1.79 | 0.82500 | 0.01200 | 0.09810 | 0.00120 | 0.25655 | 610.6 | 6.6 | 603.4 | 6.9 | 634 | 34 | 603.4 | 6.9 | 1.2 | Single Age |
| KNS01_112 | 34 | 0.37 | 1.84000 | 0.03100 | 0.17650 | 0.00310 | 0.35611 | 1061.0 | 11.0 | 1047.0 | 17.0 | 1099 | 38 | 1099.0 | 38.0 | 4.7 | Single Age |
| KNS01_113 | 66.8 | 0.74 | 9.90500 | 0.09700 | 0.44070 | 0.00450 | 0.65753 | 2425.2 | 9.0 | 2356.0 | 20.0 | 2483 | 14 | 2483.0 | 14.0 | 5.1 | Single Age |
| KNS01_114 | 212 | 1.68 | 1.61400 | 0.01800 | 0.16370 | 0.00170 | 0.66347 | 975.3 | 6.8 | 977.1 | 9.6 | 974 | 19 | 974.0 | 19.0 | 0.3 | Single Age |
| KNS01_115 | 224.5 | 0.36 | 1.53000 | 0.01600 | 0.15710 | 0.00160 | 0.66163 | 943.0 | 6.2 | 940.5 | 9.1 | 956 | 18 | 956.0 | 18.0 | 1.6 | Single Age |
| KNS01_116 | 254 | 1.45 | 1.79100 | 0.01400 | 0.17290 | 0.00140 | 0.63008 | 1041.8 | 5.1 | 1027.9 | 7.5 | 1083 | 14 | 1083.0 | 14.0 | 5.1 | Single Age |
| KNS01_117 | 358.8 | 2.14 | 1.29800 | 0.01500 | 0.13910 | 0.00150 | 0.52932 | 844.5 | 6.6 | 839.8 | 8.4 | 872 | 22 | 839.8 | 8.4 | 0.6 | Single Age |
| KNS01_118 | 365 | 2.00 | 4.57400 | 0.04700 | 0.31280 | 0.00320 | 0.65991 | 1744.2 | 8.5 | 1754.0 | 16.0 | 1738 | 16 | 1738.0 | 16.0 | 0.9 | Single Age |
| KNS01_119 | 965 | 130.30 | 1.34700 | 0.02600 | 0.14290 | 0.00210 | 0.69879 | 866.0 | 11.0 | 861.0 | 12.0 | 898 | 29 | 898.0 | 29.0 | 4.1 | Rim |
| KNS01_119 | 318 | 1.26 | 2.46900 | 0.02800 | 0.21440 | 0.00310 | 0.80077 | 1262.7 | 8.0 | 1252.0 | 16.0 | 1292 | 20 | 1292.0 | 20.0 | 3.1 | Core |
| KNS01_120 | 79.5 | 0.72 | 7.96400 | 0.09600 | 0.36660 | 0.00430 | 0.75227 | 2226.0 | 11.0 | 2016.0 | 20.0 | 2425 | 16 | 2425.0 | 16.0 | 16.9 | Single Age |
| KNS02_1 | 347 | 1.30 | 1.39600 | 0.01700 | 0.14660 | 0.00150 | 0.61554 | 888.7 | 7.2 | 882.0 | 8.6 | 915 | 20 | 915.0 | 20.0 | 3.6 | Single Age |
| KNS02_2 | 165.2 | 7.60 | 0.76900 | 0.01400 | 0.09470 | 0.00120 | 0.45354 | 579.5 | 7.9 | 583.4 | 7.2 | 578 | 41 | 583.4 | 7.2 | 0.7 | Single Age |
| KNS02_4 | 527 | 1.62 | 3.60200 | 0.04300 | 0.26780 | 0.00380 | 0.30695 | 1549.4 | 9.4 | 1529.0 | 19.0 | 1584 | 19 | 1584.0 | 19.0 | 3.5 | Single Age |
| KNS02_5 | 538 | 1.35 | 11.08000 | 0.11000 | 0.46230 | 0.00580 | 0.84109 | 2529.4 | 9.5 | 2449.0 | 25.0 | 2603 | 11 | 2603.0 | 11.0 | 5.9 | Single Age |
| KNS02_6 | 542 | 5.05 | 2.18800 | 0.02700 | 0.20000 | 0.00240 | 0.67243 | 1176.6 | 8.6 | 1175.0 | 13.0 | 1182 | 18 | 1182.0 | 18.0 | 0.6 | Single Age |
| KNS02_7 | 747 | 23.70 | 2.25700 | 0.03900 | 0.20190 | 0.00370 | 0.67194 | 1199.0 | 12.0 | 1185.0 | 20.0 | 1235 | 25 | 1235.0 | 25.0 | 4.0 | Single Age |
| KNS02_8 | 249 | 2.40 | 1.56000 | 0.02200 | 0.15800 | 0.00190 | 0.58827 | 953.7 | 8.7 | 945.0 | 11.0 | 968 | 24 | 968.0 | 24.0 | 2.4 | Single Age |
| KNS02_9 | 921 | 20.46 | 1.70300 | 0.03000 | 0.16850 | 0.00280 | 0.79434 | 1009.0 | 11.0 | 1004.0 | 16.0 | 1026 | 25 | 1026.0 | 25.0 | 2.1 | Single Age |
| KNS02_10 | 349 | 0.48 | 1.15500 | 0.01800 | 0.12770 | 0.00210 | 0.70909 | 779.0 | 8.7 | 775.0 | 12.0 | 797 | 22 | 775.0 | 12.0 | 0.5 | Single Age |
| KNS02_11 | 232 | 4.50 | 1.59800 | 0.03700 | 0.16290 | 0.00390 | 0.72406 | 968.0 | 14.0 | 972.0 | 22.0 | 970 | 39 | 970.0 | 39.0 | 0.2 | Single Age |
| KNS02_12 | 153.2 | 1.02 | 1.17400 | 0.02400 | 0.13040 | 0.00180 | 0.49176 | 787.0 | 11.0 | 790.0 | 10.0 | 787 | 40 | 790.0 | 10.0 | 0.4 | Single Age |
| KNS02_13 | 544 | 2.54 | 10.85000 | 0.19000 | 0.47300 | 0.00740 | 0.64806 | 2508.0 | 16.0 | 2495.0 | 32.0 | 2530 | 23 | 2530.0 | 23.0 | 1.4 | Single Age |
| KNS02_14 | 713 | 10.55 | 1.59900 | 0.02100 | 0.16210 | 0.00170 | 0.79495 | 970.1 | 8.0 | 968.2 | 9.5 | 975 | 18 | 975.0 | 18.0 | 0.7 | Single Age |
| KNS02_15 | 179 | 0.59 | 1.12900 | 0.01900 | 0.12760 | 0.00210 | 0.38934 | 766.6 | 9.1 | 774.0 | 12.0 | 768 | 43 | 774.0 | 12.0 | 1.0 | Single Age |
| KNS02_16 | 204 | 2.06 | 4.75800 | 0.06600 | 0.30510 | 0.00410 | 0.66610 | 1777.0 | 12.0 | 1719.0 | 21.0 | 1853 | 16 | 1853.0 | 16.0 | 7.2 | Single Age |
| KNS02_17 | 313 | 1.86 | 1.61300 | 0.03500 | 0.15670 | 0.00300 | 0.83734 | 980.0 | 14.0 | 938.0 | 16.0 | 1072 | 27 | 1072.0 | 27.0 | 12.5 | Single Age |
| KNS02_18 | 38.8 | 1.10 | 1.50200 | 0.03600 | 0.15520 | 0.00290 | 0.06284 | 933.0 | 14.0 | 930.0 | 16.0 | 937 | 65 | 937.0 | 65.0 | 0.7 | Single Age |
| KNS02_19 | 553 | 5.09 | 4.96800 | 0.06000 | 0.32460 | 0.00650 | 0.77162 | 1814.0 | 10.0 | 1811.0 | 31.0 | 1825 | 23 | 1825.0 | 23.0 | 0.8 | Single Age |
| KNS02_20 | 938 | 1.43 | 6.57000 | 0.11000 | 0.37200 | 0.00750 | 0.83066 | 2055.0 | 14.0 | 2038.0 | 35.0 | 2071 | 18 | 2071.0 | 18.0 | 1.6 | Single Age |
| KNS02_21 | 215 | 2.63 | 14.21000 | 0.18000 | 0.49840 | 0.00680 | 0.86670 | 2763.0 | 12.0 | 2610.0 | 30.0 | 2885 | 12 | 2885.0 | 12.0 | 9.5 | Single Age |
| KNS02_22 | 121.3 | 1.30 | 1.39500 | 0.03500 | 0.14580 | 0.00380 | 0.59732 | 889.0 | 16.0 | 877.0 | 21.0 | 923 | 42 | 923.0 | 42.0 | 5.0 | Single Age |
| KNS02_23 | 158.8 | 0.89 | 7.14600 | 0.08200 | 0.38980 | 0.00520 | 0.59391 | 2130.0 | 10.0 | 2121.0 | 24.0 | 2143 | 19 | 2143.0 | 19.0 | 1.0 | Single Age |
| KNS02_24 | 263 | 4.59 | 6.95600 | 0.06600 | 0.38080 | 0.00400 | 0.61599 | 2105.2 | 8.4 | 2079.0 | 19.0 | 2124 | 16 | 2124.0 | 16.0 | 2.1 | Single Age |
| KNS02_25 | 47.7 | 0.64 | 1.56100 | 0.03700 | 0.16220 | 0.00360 | 0.56309 | 957.0 | 15.0 | 968.0 | 20.0 | 968 | 45 | 968.0 | 45.0 | 0.0 | Single Age |
| KNS02_26 | 659 | 1.48 | 1.13600 | 0.02200 | 0.12620 | 0.00230 | 0.24323 | 770.0 | 11.0 | 766.0 | 13.0 | 774 | 38 | 766.0 | 13.0 | 0.5 | Single Age |
| KNS02_27 | 136 | 1.12 | 0.72600 | 0.01300 | 0.08750 | 0.00150 | 0.31985 | 553.8 | 7.8 | 540.8 | 9.1 | 595 | 45 | 540.8 | 9.1 | 2.3 | Single Age |
| KNS02_28 | 384.3 | 2.09 | 10.16000 | 0.14000 | 0.45790 | 0.00730 | 0.62453 | 2448.0 | 13.0 | 2429.0 | 32.0 | 2454 | 18 | 2454.0 | 18.0 | 1.0 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KNS02_29 | 268 | 1.25 | 1.19300 | 0.01900 | 0.12930 | 0.00240 | 0.61201 | 800.0 | 8.7 | 783.0 | 14.0 | 835 | 32 | 783.0 | 14.0 | 2.1 | Single Age |
| KNS02_30 | 195 | 2.48 | 1.70800 | 0.02700 | 0.16480 | 0.00260 | 0.67093 | 1010.0 | 10.0 | 983.0 | 14.0 | 1068 | 24 | 1068.0 | 24.0 | 8.0 | Single Age |
| KNS02_31 | 1013 | 5.65 | 1.48100 | 0.01300 | 0.15280 | 0.00160 | 0.68663 | 922.5 | 5.3 | 916.6 | 8.7 | 925 | 16 | 925.0 | 16.0 | 0.9 | Single Age |
| KNS02_32 | 1102 | 22.50 | 1.59000 | 0.08300 | 0.16080 | 0.00770 | 0.95182 | 962.0 | 34.0 | 960.0 | 43.0 | 973 | 36 | 973.0 | 36.0 | 1.3 | Rim |
| KNS02_32 | 98.1 | 0.23 | 4.32000 | 0.14000 | 0.30250 | 0.00890 | 0.57564 | 1695.0 | 27.0 | 1703.0 | 44.0 | 1683 | 40 | 1683.0 | 40.0 | 1.2 | Core |
| KNS02_33 | 54.1 | 1.29 | 1.10300 | 0.02600 | 0.12060 | 0.00200 | 0.34682 | 753.0 | 13.0 | 735.0 | 11.0 | 810 | 53 | 735.0 | 11.0 | 2.4 | Single Age |
| KNS02_34 | 495 | 1.91 | 13.51000 | 0.12000 | 0.52700 | 0.00600 | 0.95209 | 2715.6 | 8.7 | 2728.0 | 26.0 | 2706 | 14 | 2706.0 | 14.0 | 0.8 | Single Age |
| KNS02_35 | 1305 | 2.19 | 3.41200 | 0.07600 | 0.24830 | 0.00560 | 0.94707 | 1506.0 | 17.0 | 1429.0 | 29.0 | 1618 | 14 | 1618.0 | 14.0 | 11.7 | Single Age |
| KNS02_36 | 272 | 1.19 | 3.12600 | 0.02600 | 0.25060 | 0.00280 | 0.43640 | 1438.8 | 6.5 | 1443.0 | 14.0 | 1435 | 18 | 1435.0 | 18.0 | 0.6 | Single Age |
| KNS02_37 | 1316 | 14.10 | 1.48500 | 0.02100 | 0.15410 | 0.00270 | 0.74453 | 924.1 | 8.6 | 924.0 | 15.0 | 930 | 22 | 930.0 | 22.0 | 0.6 | Single Age |
| KNS02_38 | 147.7 | 0.71 | 3.87000 | 0.03700 | 0.28440 | 0.00330 | 0.56659 | 1607.9 | 7.8 | 1613.0 | 17.0 | 1598 | 18 | 1598.0 | 18.0 | 0.9 | Single Age |
| KNS02_39 | 156.8 | 0.72 | 29.81000 | 0.26000 | 0.71060 | 0.00740 | 0.70364 | 3479.9 | 8.4 | 3460.0 | 28.0 | 3489 | 10 | 3489.0 | 10.0 | 0.8 | Single Age |
| KNS02_40 | 174 | 2.92 | 2.52100 | 0.04300 | 0.21180 | 0.00330 | 0.66875 | 1279.0 | 12.0 | 1238.0 | 17.0 | 1322 | 25 | 1322.0 | 25.0 | 6.4 | Single Age |
| KNS02_41 | 306 | 2.47 | 0.88700 | 0.01900 | 0.10460 | 0.00180 | 0.47772 | 646.0 | 9.8 | 641.0 | 11.0 | 651 | 40 | 641.0 | 11.0 | 0.8 | Single Age |
| KNS02_42 | 1035 | 8.35 | 1.48300 | 0.01500 | 0.15100 | 0.00170 | 0.78760 | 923.1 | 6.2 | 906.4 | 9.7 | 947 | 16 | 947.0 | 16.0 | 4.3 | Single Age |
| KNS02_43 | 1203 | 11.29 | 1.36200 | 0.01200 | 0.14540 | 0.00150 | 0.73692 | 873.1 | 5.2 | 875.8 | 8.7 | 859 | 14 | 859.0 | 14.0 | 2.0 | Single Age |
| KNS02_44 | 133.9 | 3.68 | 1.47500 | 0.02700 | 0.13040 | 0.00250 | 0.55609 | 921.0 | 12.0 | 790.0 | 14.0 | 1257 | 33 | DISC | DISC | 14.2 | Single Age |
| KNS02_45 | 309.7 | 1.94 | 1.34900 | 0.01800 | 0.14320 | 0.00170 | 0.49917 | 866.5 | 7.9 | 862.4 | 9.6 | 876 | 29 | 876.0 | 29.0 | 1.6 | Single Age |
| KNS02_46 | 296 | 5.92 | 0.73500 | 0.01100 | 0.08910 | 0.00120 | 0.18136 | 560.0 | 6.4 | 550.0 | 7.3 | 604 | 37 | 550.0 | 7.3 | 1.8 | Single Age |
| KNS02_47 | 440 | 4.40 | 1.33000 | 0.01900 | 0.14240 | 0.00200 | 0.74789 | 858.3 | 8.1 | 858.0 | 11.0 | 847 | 20 | 847.0 | 11.0 | 0.0 | Single Age |
| KNS02_48 | 207.3 | 0.73 | 1.65100 | 0.02000 | 0.16700 | 0.00200 | 0.51793 | 990.2 | 7.7 | 995.0 | 11.0 | 974 | 26 | 974.0 | 26.0 | 2.2 | Single Age |
| KNS02_49 | 280 | 2.07 | 1.23000 | 0.01900 | 0.13440 | 0.00160 | 0.69301 | 813.8 | 8.7 | 812.6 | 9.3 | 805 | 25 | 812.6 | 9.3 | 0.1 | Single Age |
| KNS02_50 | 691 | 4.86 | 1.67500 | 0.01900 | 0.16660 | 0.00190 | 0.80387 | 998.8 | 7.1 | 993.0 | 11.0 | 1005 | 16 | 1005.0 | 16.0 | 1.2 | Single Age |
| KNS02_51 | 665 | 5.84 | 0.65090 | 0.00990 | 0.08090 | 0.00100 | 0.65598 | 508.8 | 6.1 | 501.5 | 6.1 | 516 | 32 | 501.5 | 6.1 | 1.4 | Single Age |
| KNS02_52 | 682 | 1.52 | 9.89000 | 0.17000 | 0.44570 | 0.00840 | 0.84644 | 2425.0 | 16.0 | 2374.0 | 37.0 | 2467 | 17 | 2467.0 | 17.0 | 3.8 | Single Age |
| KNS02_54 | 325 | 2.53 | 1.05000 | 0.01100 | 0.11930 | 0.00110 | 0.48003 | 728.5 | 5.5 | 726.7 | 6.4 | 733 | 20 | 726.7 | 6.4 | 0.2 | Single Age |
| KNS02_55 | 369 | 1.52 | 0.67010 | 0.00930 | 0.08300 | 0.00090 | 0.48630 | 520.4 | 5.7 | 514.0 | 5.4 | 550 | 28 | 514.0 | 5.4 | 1.2 | Single Age |
| KNS02_56 | 4810 | 4.18 | 0.85200 | 0.02300 | 0.09540 | 0.00250 | 0.92291 | 626.0 | 13.0 | 587.0 | 15.0 | 766 | 24 | 587.0 | 15.0 | 6.2 | Single Age |
| KNS02_57 | 823 | 2.07 | 3.64700 | 0.03900 | 0.26570 | 0.00290 | 0.71785 | 1559.4 | 8.6 | 1518.0 | 15.0 | 1602 | 16 | 1602.0 | 16.0 | 5.2 | Single Age |
| KNS02_58 | 387 | 2.45 | 0.85100 | 0.01500 | 0.10100 | 0.00150 | 0.39205 | 624.7 | 8.1 | 620.1 | 9.0 | 649 | 34 | 620.1 | 9.0 | 0.7 | Single Age |
| KNS02_59 | 837 | 2.83 | 1.59000 | 0.02000 | 0.16110 | 0.00210 | 0.74100 | 965.5 | 8.0 | 963.0 | 12.0 | 959 | 16 | 959.0 | 16.0 | 0.4 | Single Age |
| KNS02_60 | 1087 | 4.07 | 10.27000 | 0.11000 | 0.45800 | 0.00530 | 0.75555 | 2458.6 | 9.8 | 2430.0 | 23.0 | 2478 | 14 | 2478.0 | 14.0 | 1.9 | Single Age |
| KNS02_61 | 550 | 2.64 | 1.77500 | 0.02600 | 0.17310 | 0.00270 | 0.82556 | 1035.7 | 9.6 | 1031.0 | 14.0 | 1049 | 18 | 1049.0 | 18.0 | 1.7 | Single Age |
| KNS02_62 | 577 | 1.53 | 1.36500 | 0.01800 | 0.13620 | 0.00220 | 0.69278 | 875.6 | 7.8 | 825.0 | 12.0 | 979 | 24 | 825.0 | 12.0 | 5.8 | Single Age |
| KNS02_63 | 180 | 1.32 | 7.74000 | 0.13000 | 0.40530 | 0.00610 | 0.68464 | 2201.0 | 15.0 | 2193.0 | 28.0 | 2188 | 20 | 2188.0 | 20.0 | 0.2 | Single Age |
| KNS02_64 | 617 | 2.75 | 1.35500 | 0.01200 | 0.14310 | 0.00140 | 0.46790 | 869.3 | 5.3 | 862.3 | 7.8 | 859 | 19 | 859.0 | 19.0 | 0.4 | Single Age |
| KNS02_65 | 513 | 3.69 | 26.93000 | 0.38000 | 0.66600 | 0.01300 | 0.76269 | 3382.0 | 14.0 | 3296.0 | 48.0 | 3417 | 17 | 3417.0 | 17.0 | 3.5 | Single Age |
| KNS02_66 | 1300 | 6.89 | 1.58200 | 0.01800 | 0.16010 | 0.00180 | 0.71980 | 962.8 | 7.0 | 957.0 | 9.8 | 955 | 19 | 955.0 | 19.0 | 0.2 | Single Age |
| KNS02_67 | 145.5 | 0.71 | 2.20300 | 0.03900 | 0.20340 | 0.00250 | 0.49039 | 1181.0 | 12.0 | 1194.0 | 13.0 | 1165 | 28 | 1165.0 | 28.0 | 2.5 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KNS02_68 | 474 | 1.45 | 1.36400 | 0.01400 | 0.14540 | 0.00140 | 0.57525 | 873.3 | 5.9 | 874.8 | 7.6 | 862 | 18 | 862.0 | 18.0 | 1.5 | Single Age |
| KNS02_69 | 1140 | 1.52 | 1.30800 | 0.01800 | 0.13930 | 0.00190 | 0.72505 | 849.7 | 8.0 | 840.0 | 11.0 | 850 | 21 | 840.0 | 11.0 | 1.1 | Single Age |
| KNS02_70 | 168 | 0.72 | 1.35100 | 0.02600 | 0.14350 | 0.00230 | 0.81040 | 870.0 | 12.0 | 864.0 | 13.0 | 862 | 37 | 862.0 | 37.0 | 0.2 | Single Age |
| KNS02_71 | 91 | 1.47 | 1.51800 | 0.04400 | 0.15300 | 0.00320 | 0.34675 | 940.0 | 19.0 | 917.0 | 18.0 | 995 | 57 | 995.0 | 57.0 | 7.8 | Single Age |
| KNS02_72 | 207 | 1.34 | 1.46200 | 0.02800 | 0.15340 | 0.00210 | 0.52973 | 914.0 | 11.0 | 920.0 | 11.0 | 902 | 33 | 902.0 | 33.0 | 2.0 | Single Age |
| KNS02_73 | 99.9 | 1.65 | 12.78000 | 0.20000 | 0.46910 | 0.00900 | 0.74469 | 2664.0 | 15.0 | 2488.0 | 40.0 | 2796 | 21 | 2796.0 | 21.0 | 11.0 | Single Age |
| KNS02_74 | 1242 | 7.28 | 1.66500 | 0.02800 | 0.16820 | 0.00300 | 0.82142 | 995.0 | 11.0 | 1002.0 | 16.0 | 962 | 23 | 962.0 | 23.0 | 4.2 | Single Age |
| KNS02_75 | 420 | 2.22 | 1.64000 | 0.02300 | 0.16660 | 0.00230 | 0.69328 | 986.6 | 8.6 | 993.0 | 13.0 | 964 | 22 | 964.0 | 22.0 | 3.0 | Single Age |
| KNS02_76 | 53.4 | 0.45 | 0.72400 | 0.02400 | 0.08820 | 0.00180 | 0.12561 | 554.0 | 14.0 | 545.0 | 10.0 | 602 | 78 | 545.0 | 10.0 | 1.6 | Single Age |
| KNS02_77 | 1290 | 14.60 | 0.91200 | 0.03400 | 0.09950 | 0.00390 | 0.90859 | 656.0 | 18.0 | 611.0 | 23.0 | 810 | 28 | 611.0 | 23.0 | 6.9 | Single Age |
| KNS02_78 | 70.9 | 0.84 | 1.70500 | 0.03700 | 0.16930 | 0.00250 | 0.58463 | 1011.0 | 14.0 | 1009.0 | 14.0 | 1032 | 35 | 1032.0 | 35.0 | 2.2 | Single Age |
| KNS02_79 | 130.6 | 1.11 | 10.50000 | 0.14000 | 0.46850 | 0.00720 | 0.70309 | 2478.0 | 12.0 | 2480.0 | 31.0 | 2468 | 18 | 2468.0 | 18.0 | 0.5 | Single Age |
| KNS02_80 | 712 | 15.24 | 1.06100 | 0.01300 | 0.11930 | 0.00150 | 0.64991 | 733.9 | 6.5 | 726.7 | 8.9 | 753 | 21 | 726.7 | 8.9 | 1.0 | Single Age |
| KNS02_81 | 491 | 0.95 | 1.29700 | 0.02100 | 0.13530 | 0.00220 | 0.74045 | 843.7 | 9.3 | 818.0 | 12.0 | 912 | 22 | 818.0 | 12.0 | 3.0 | Single Age |
| KNS02_82 | 328 | 2.45 | 1.40400 | 0.02400 | 0.14900 | 0.00250 | 0.51468 | 890.0 | 10.0 | 895.0 | 14.0 | 889 | 36 | 889.0 | 36.0 | 0.7 | Single Age |
| KNS02_83 | 275 | 8.55 | 5.20300 | 0.06100 | 0.33300 | 0.00380 | 0.71843 | 1855.8 | 9.8 | 1853.0 | 18.0 | 1856 | 16 | 1856.0 | 16.0 | 0.2 | Single Age |
| KNS02_84 | 460.7 | 3.45 | 1.45600 | 0.02000 | 0.15210 | 0.00220 | 0.65618 | 911.6 | 8.1 | 912.0 | 12.0 | 916 | 24 | 916.0 | 24.0 | 0.4 | Single Age |
| KNS02_85 | 792 | 2.06 | 1.30500 | 0.02100 | 0.14050 | 0.00200 | 0.53691 | 847.4 | 9.0 | 847.0 | 11.0 | 854 | 25 | 847.0 | 11.0 | 0.0 | Single Age |
| KNS02_86 | 514 | 1.54 | 1.61300 | 0.02000 | 0.16360 | 0.00260 | 0.79224 | 976.0 | 8.0 | 977.0 | 15.0 | 990 | 19 | 990.0 | 19.0 | 1.3 | Single Age |
| KNS02_87 | 1695 | 20.20 | 1.57800 | 0.02200 | 0.16260 | 0.00250 | 0.79784 | 960.7 | 8.6 | 971.0 | 14.0 | 950 | 18 | 950.0 | 18.0 | 2.2 | Single Age |
| KNS02_88 | 206 | 1.25 | 10.75000 | 0.13000 | 0.47480 | 0.00570 | 0.59786 | 2501.0 | 12.0 | 2504.0 | 25.0 | 2489 | 18 | 2489.0 | 18.0 | 0.6 | Single Age |
| KNS02_89 | 1780 | 6.01 | 1.28500 | 0.02200 | 0.13450 | 0.00240 | 0.91118 | 839.2 | 9.4 | 813.0 | 14.0 | 927 | 16 | 813.0 | 14.0 | 3.1 | Single Age |
| KNS02_90 | 217 | 2.18 | 1.70100 | 0.04200 | 0.16960 | 0.00390 | 0.84505 | 1008.0 | 16.0 | 1009.0 | 21.0 | 1002 | 35 | 1002.0 | 35.0 | 0.7 | Single Age |
| KNS02_91 | 1000 | 8.10 | 4.98700 | 0.07300 | 0.32460 | 0.00630 | 0.83864 | 1816.0 | 12.0 | 1812.0 | 31.0 | 1842 | 20 | 1842.0 | 20.0 | 1.6 | Single Age |
| KNS02_92 | 571 | 1.94 | 1.11200 | 0.01200 | 0.12510 | 0.00130 | 0.65976 | 759.0 | 5.7 | 759.6 | 7.3 | 773 | 19 | 759.6 | 7.3 | 0.1 | Single Age |
| KNS02_93 | 1140 | 37.00 | 4.07600 | 0.05900 | 0.29740 | 0.00490 | 0.78845 | 1650.0 | 12.0 | 1677.0 | 24.0 | 1628 | 20 | 1628.0 | 20.0 | 3.0 | Single Age |
| KNS02_94 | 1224 | 63.90 | 1.39200 | 0.01800 | 0.14650 | 0.00160 | 0.63451 | 885.1 | 7.5 | 881.4 | 9.1 | 905 | 20 | 905.0 | 20.0 | 2.6 | Single Age |
| KNS02_95 | 627 | 19.10 | 10.84000 | 0.19000 | 0.47800 | 0.00980 | 0.88145 | 2510.0 | 17.0 | 2516.0 | 43.0 | 2511 | 18 | 2511.0 | 18.0 | 0.2 | Single Age |
| KNS02_96 | 483 | 2.62 | 1.39000 | 0.03500 | 0.14340 | 0.00330 | 0.89708 | 883.0 | 15.0 | 864.0 | 19.0 | 929 | 23 | 929.0 | 23.0 | 7.0 | Single Age |
| KNS02_97 | 514 | 1.26 | 4.63700 | 0.09700 | 0.31450 | 0.00660 | 0.78599 | 1755.0 | 17.0 | 1762.0 | 32.0 | 1775 | 26 | 1775.0 | 26.0 | 0.7 | Single Age |
| KNS02_98 | 214 | 1.03 | 10.76000 | 0.10000 | 0.47330 | 0.00450 | 0.71850 | 2501.5 | 8.8 | 2497.0 | 20.0 | 2521 | 12 | 2521.0 | 12.0 | 1.0 | Single Age |
| KNS02_100 | 832 | 8.30 | 5.28300 | 0.04600 | 0.33830 | 0.00380 | 0.68765 | 1865.5 | 7.5 | 1878.0 | 18.0 | 1865 | 14 | 1865.0 | 14.0 | 0.7 | Single Age |
| KNS02_101 | 360 | 1.88 | 1.36600 | 0.01500 | 0.14750 | 0.00140 | 0.67310 | 873.9 | 6.6 | 887.0 | 7.8 | 852 | 17 | 852.0 | 17.0 | 4.1 | Single Age |
| KNS02_102 | 466 | 1.77 | 1.91400 | 0.02900 | 0.16760 | 0.00370 | 0.51829 | 1086.0 | 10.0 | 999.0 | 20.0 | 1257 | 34 | 1257.0 | 34.0 | 20.5 | Single Age |
| KNS02_103 | 3140 | 68.00 | 1.42700 | 0.01900 | 0.15270 | 0.00200 | 0.78820 | 900.2 | 8.1 | 916.0 | 11.0 | 876 | 14 | 876.0 | 14.0 | 4.6 | Rim |
| KNS02_103 | 727.9 | 1.32 | 4.02200 | 0.05600 | 0.29300 | 0.00450 | 0.82406 | 1638.0 | 11.0 | 1656.0 | 22.0 | 1628 | 15 | 1628.0 | 15.0 | 1.7 | Core |
| KNS02_104 | 241 | 1.28 | 2.86600 | 0.07200 | 0.23170 | 0.00440 | 0.75355 | 1372.0 | 19.0 | 1343.0 | 23.0 | 1423 | 27 | 1423.0 | 27.0 | 5.6 | Single Age |
| KNS02_105 | 810 | 0.98 | 1.43200 | 0.02000 | 0.15150 | 0.00210 | 0.79989 | 901.7 | 8.2 | 909.0 | 12.0 | 869 | 19 | 869.0 | 19.0 | 4.6 | Single Age |
| KNS02_106 | 821 | 6.65 | 1.76700 | 0.02100 | 0.17250 | 0.00230 | 0.78329 | 1033.1 | 7.8 | 1028.0 | 12.0 | 1043 | 19 | 1043.0 | 19.0 | 1.4 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KNS02_107 | 1525 | 8.43 | 4.72900 | 0.04900 | 0.31220 | 0.00370 | 0.78892 | 1771.7 | 8.6 | 1751.0 | 18.0 | 1800 | 14 | 1800.0 | 14.0 | 2.7 | Single Age |
| KNS02_108 | 192.8 | 1.21 | 3.29700 | 0.03900 | 0.25660 | 0.00300 | 0.64905 | 1479.5 | 9.2 | 1472.0 | 16.0 | 1501 | 17 | 1501.0 | 17.0 | 1.9 | Single Age |
| KNS02_109 | 721 | 1.52 | 1.45500 | 0.01500 | 0.15270 | 0.00150 | 0.65023 | 912.5 | 6.2 | 916.2 | 8.4 | 906 | 19 | 906.0 | 19.0 | 1.1 | Single Age |
| KNS02_110 | 364 | 7.60 | 1.69900 | 0.02300 | 0.16890 | 0.00230 | 0.65750 | 1008.4 | 8.9 | 1006.0 | 13.0 | 1006 | 22 | 1006.0 | 22.0 | 0.0 | Single Age |
| KNS02_111 | 1125 | 4.87 | 10.29000 | 0.11000 | 0.46140 | 0.00630 | 0.80139 | 2460.0 | 10.0 | 2449.0 | 29.0 | 2479 | 15 | 2479.0 | 15.0 | 1.2 | Single Age |
| KNS02_112 | 217 | 2.74 | 9.84000 | 0.12000 | 0.44160 | 0.00580 | 0.74455 | 2420.0 | 11.0 | 2357.0 | 26.0 | 2473 | 15 | 2473.0 | 15.0 | 4.7 | Single Age |
| KNS02_113 | 400 | 3.02 | 1.96900 | 0.02100 | 0.18830 | 0.00250 | 0.71906 | 1104.5 | 7.3 | 1112.0 | 13.0 | 1093 | 20 | 1093.0 | 20.0 | 1.7 | Single Age |
| KNS02_114 | 820 | 28.30 | 5.10900 | 0.06900 | 0.32650 | 0.00410 | 0.84705 | 1838.0 | 12.0 | 1821.0 | 20.0 | 1849 | 15 | 1849.0 | 15.0 | 1.5 | Single Age |
| KNS02_115 | 85.8 | 0.36 | 0.67900 | 0.01800 | 0.07980 | 0.00140 | 0.28382 | 525.0 | 11.0 | 495.9 | 8.4 | 641 | 61 | 495.9 | 8.4 | 5.5 | Single Age |
| KNS02_116 | 140 | 1.25 | 1.34800 | 0.02300 | 0.14330 | 0.00150 | 0.41711 | 867.0 | 10.0 | 863.4 | 8.4 | 846 | 30 | 846.0 | 8.4 | 0.4 | Single Age |
| KNS02_117 | 675 | 2.51 | 1.07300 | 0.04500 | 0.11710 | 0.00500 | 0.84763 | 739.0 | 22.0 | 714.0 | 29.0 | 811 | 39 | 714.0 | 29.0 | 3.4 | Single Age |
| KNS02_118 | 305 | 1.71 | 1.38100 | 0.01500 | 0.14610 | 0.00140 | 0.52914 | 882.1 | 6.0 | 878.9 | 7.6 | 880 | 21 | 880.0 | 21.0 | 0.1 | Single Age |
| KNS02_119 | 386.3 | 2.18 | 7.66800 | 0.09400 | 0.40310 | 0.00570 | 0.76757 | 2193.0 | 11.0 | 2185.0 | 25.0 | 2189 | 16 | 2189.0 | 16.0 | 0.2 | Single Age |
| KNS02_120 | 341 | 1.00 | 1.61200 | 0.02000 | 0.16350 | 0.00200 | 0.62374 | 974.3 | 7.8 | 976.0 | 11.0 | 946 | 24 | 946.0 | 24.0 | 3.2 | Single Age |
| NAM01_1 | 91 | 1.23 | 6.82600 | 0.05800 | 0.38300 | 0.00310 | 0.55732 | 2088.6 | 7.4 | 2090.0 | 14.0 | 2085 | 14 | 2085.0 | 14.0 | 0.2 | Single Age |
| NAM01_3 | 505 | 2.52 | 0.63700 | 0.01300 | 0.08170 | 0.00140 | 0.70411 | 499.9 | 7.9 | 506.4 | 8.5 | 483 | 30 | 506.4 | 8.5 | 1.3 | Rim |
| NAM01_3 | 157.1 | 0.97 | 1.26300 | 0.03000 | 0.13530 | 0.00240 | 0.11327 | 829.0 | 14.0 | 818.0 | 14.0 | 850 | 60 | 818.0 | 14.0 | 1.3 | Core |
| NAM01_4 | 292 | 4.66 | 0.99900 | 0.02400 | 0.11660 | 0.00280 | 0.72332 | 703.0 | 12.0 | 711.0 | 16.0 | 678 | 37 | 711.0 | 16.0 | 1.1 | Rim |
| NAM01_4 | 233.6 | 3.94 | 1.41600 | 0.04300 | 0.14840 | 0.00320 | 0.73903 | 895.0 | 18.0 | 892.0 | 18.0 | 897 | 46 | 897.0 | 46.0 | 0.6 | Core |
| NAM01_5 | 666 | 7.40 | 1.06100 | 0.01600 | 0.11990 | 0.00200 | 0.70426 | 733.9 | 7.8 | 730.0 | 11.0 | 750 | 20 | 730.0 | 11.0 | 0.5 | Rim |
| NAM01_5 | 365 | 5.72 | 1.29500 | 0.01800 | 0.13830 | 0.00150 | 0.57284 | 843.0 | 7.8 | 834.8 | 8.2 | 861 | 24 | 834.8 | 8.2 | 1.0 | Core |
| NAM01_6 | 113 | 1.25 | 3.13400 | 0.04000 | 0.24950 | 0.00320 | 0.79014 | 1441.0 | 10.0 | 1435.0 | 16.0 | 1440 | 15 | 1440.0 | 15.0 | 0.3 | Single Age |
| NAM01_7 | 269 | 1.46 | 5.32500 | 0.06500 | 0.33790 | 0.00380 | 0.84031 | 1874.0 | 10.0 | 1876.0 | 18.0 | 1861 | 13 | 1861.0 | 13.0 | 0.8 | Single Age |
| NAM01_8 | 651 | 3.15 | 0.60110 | 0.00630 | 0.07636 | 0.00083 | 0.66375 | 477.8 | 4.0 | 474.3 | 5.0 | 491 | 19 | 474.3 | 5.0 | 0.7 | Single Age |
| NAM01_9 | 266 | 8.60 | 1.71200 | 0.04100 | 0.17180 | 0.00330 | 0.75187 | 1016.0 | 14.0 | 1022.0 | 18.0 | 997 | 29 | 997.0 | 29.0 | 2.5 | Rim |
| NAM01_9 | 106.7 | 1.64 | 3.33500 | 0.07500 | 0.24810 | 0.00600 | 0.88911 | 1489.0 | 17.0 | 1428.0 | 31.0 | 1573 | 24 | 1573.0 | 24.0 | 9.2 | Core |
| NAM01_10 | 161.4 | 1.45 | 2.02900 | 0.02000 | 0.19090 | 0.00200 | 0.74373 | 1124.9 | 6.7 | 1126.0 | 11.0 | 1125 | 19 | 1125.0 | 19.0 | 0.1 | Single Age |
| NAM01_11 | 309 | 0.33 | 0.73000 | 0.01900 | 0.08810 | 0.00200 | 0.90385 | 557.0 | 11.0 | 544.0 | 12.0 | 593 | 23 | 544.0 | 12.0 | 2.3 | Single Age |
| NAM01_12 | 84.2 | 6.24 | 1.32900 | 0.01800 | 0.14070 | 0.00150 | 0.43172 | 857.9 | 7.6 | 848.6 | 8.6 | 874 | 26 | 848.6 | 8.6 | 1.1 | Single Age |
| NAM01_13 | 38.7 | 0.34 | 1.46100 | 0.02400 | 0.15080 | 0.00180 | 0.45132 | 913.4 | 9.8 | 907.0 | 11.0 | 935 | 36 | 935.0 | 36.0 | 3.0 | Single Age |
| NAM01_14 | 92 | 1.82 | 10.73000 | 0.16000 | 0.47130 | 0.00670 | 0.75486 | 2499.0 | 14.0 | 2488.0 | 29.0 | 2513 | 15 | 2513.0 | 15.0 | 1.0 | Single Age |
| NAM01_15 | 1099 | 4.61 | 10.07000 | 0.18000 | 0.43770 | 0.00890 | 0.80815 | 2441.0 | 16.0 | 2338.0 | 40.0 | 2529 | 20 | 2529.0 | 20.0 | 7.6 | Single Age |
| NAM01_16 | 397 | 3.12 | 1.38500 | 0.01300 | 0.14620 | 0.00100 | 0.55992 | 882.1 | 5.4 | 879.4 | 5.9 | 895 | 16 | 895.0 | 16.0 | 1.7 | Single Age |
| NAM01_17 | 443 | 2.63 | 1.53200 | 0.01400 | 0.15670 | 0.00150 | 0.78362 | 943.2 | 5.5 | 939.2 | 8.2 | 946 | 12 | 946.0 | 12.0 | 0.7 | Single Age |
| NAM01_18 | 1417 | 7.59 | 1.68900 | 0.02700 | 0.16160 | 0.00300 | 0.74134 | 1004.0 | 10.0 | 966.0 | 17.0 | 1077 | 25 | 1077.0 | 25.0 | 10.3 | Rim |
| NAM01_18 | 220.2 | 1.16 | 2.79200 | 0.03500 | 0.22550 | 0.00320 | 0.67628 | 1353.1 | 9.5 | 1311.0 | 17.0 | 1428 | 23 | 1428.0 | 23.0 | 8.2 | Core |
| NAM01_19 | 591 | 1.55 | 0.84000 | 0.01100 | 0.09880 | 0.00140 | 0.60830 | 619.1 | 5.8 | 607.4 | 8.1 | 673 | 29 | 607.4 | 8.1 | 1.9 | Single Age |
| NAM01_20 | 52.7 | 0.99 | 8.73000 | 0.14000 | 0.40710 | 0.00760 | 0.74719 | 2309.0 | 15.0 | 2201.0 | 35.0 | 2408 | 21 | 2408.0 | 21.0 | 8.6 | Single Age |
| NAM01_21 | 309 | 1.28 | 1.30000 | 0.01400 | 0.13780 | 0.00140 | 0.70792 | 845.1 | 6.0 | 833.3 | 8.3 | 879 | 17 | 833.3 | 8.3 | 1.4 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NAM01_22 | 200 | 0.51 | 0.68990 | 0.00820 | 0.08600 | 0.00093 | 0.55998 | 532.5 | 4.9 | 531.8 | 5.5 | 547 | 25 | 531.8 | 5.5 | 0.1 | Single Age |
| NAM01_23 | 116.6 | 0.80 | 5.07600 | 0.05100 | 0.32630 | 0.00290 | 0.64594 | 1831.6 | 8.6 | 1820.0 | 14.0 | 1842 | 14 | 1842.0 | 14.0 | 1.2 | Single Age |
| NAM01_24 | 606 | 2.25 | 0.58540 | 0.00740 | 0.07461 | 0.00094 | 0.72674 | 467.8 | 4.8 | 463.9 | 5.7 | 489 | 22 | 463.9 | 5.7 | 0.8 | Single Age |
| NAM01_25 | 512 | 12.60 | 2.24000 | 0.13000 | 0.20390 | 0.00550 | 0.82044 | 1191.0 | 40.0 | 1196.0 | 29.0 | 1213 | 69 | 1213.0 | 69.0 | 1.4 | Rim |
| NAM01_25 | 268 | 0.59 | 10.01000 | 0.19000 | 0.43640 | 0.00670 | 0.81491 | 2435.0 | 17.0 | 2334.0 | 30.0 | 2519 | 17 | 2519.0 | 17.0 | 7.3 | Core |
| NAM01_26 | 284 | 2.01 | 2.05500 | 0.03000 | 0.18390 | 0.00190 | 0.58719 | 1133.7 | 9.9 | 1088.0 | 10.0 | 1218 | 22 | 1218.0 | 22.0 | 10.7 | Rim |
| NAM01_26 | 89.9 | 1.62 | 3.16000 | 0.10000 | 0.24510 | 0.00840 | 0.67707 | 1448.0 | 25.0 | 1413.0 | 44.0 | 1501 | 54 | 1501.0 | 54.0 | 5.9 | Core |
| NAM01_27 | 302 | 0.72 | 9.62000 | 0.10000 | 0.44500 | 0.00500 | 0.61869 | 2400.4 | 9.2 | 2372.0 | 22.0 | 2441 | 17 | 2441.0 | 17.0 | 2.8 | Single Age |
| NAM01_28 | 527.2 | 3.19 | 1.63500 | 0.02200 | 0.16230 | 0.00190 | 0.64494 | 983.6 | 8.6 | 969.0 | 10.0 | 1025 | 22 | 1025.0 | 22.0 | 5.5 | Single Age |
| NAM01_29 | 227.6 | 0.63 | 1.87800 | 0.01700 | 0.17870 | 0.00160 | 0.55050 | 1074.0 | 6.0 | 1059.6 | 8.9 | 1098 | 17 | 1098.0 | 17.0 | 3.5 | Single Age |
| NAM01_30 | 0.00124 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| NAM01_31 | 188 | 1.54 | 1.48200 | 0.02200 | 0.15400 | 0.00220 | 0.58130 | 922.1 | 9.1 | 923.0 | 13.0 | 923 | 30 | 923.0 | 30.0 | 0.0 | Single Age |
| NAM01_32 | 114 | 0.74 | 3.43700 | 0.04800 | 0.25420 | 0.00250 | 0.61996 | 1512.0 | 11.0 | 1460.0 | 13.0 | 1578 | 20 | 1578.0 | 20.0 | 7.5 | Single Age |
| NAM01_33 | 273 | 2.67 | 1.46600 | 0.02700 | 0.15240 | 0.00190 | 0.84206 | 917.0 | 11.0 | 914.0 | 11.0 | 930 | 22 | 930.0 | 22.0 | 1.7 | Single Age |
| NAM01_34 | 665 | 3.12 | 1.25800 | 0.01600 | 0.13190 | 0.00160 | 0.87906 | 826.6 | 7.0 | 798.6 | 9.3 | 918 | 13 | 798.6 | 9.3 | 3.4 | Single Age |
| NAM01_35 | 686 | 2.55 | 1.56800 | 0.01500 | 0.15570 | 0.00150 | 0.74707 | 957.6 | 5.8 | 932.7 | 8.1 | 1014 | 14 | 1014.0 | 14.0 | 8.0 | Single Age |
| NAM01_36 | 313 | 4.03 | 1.64900 | 0.02300 | 0.16390 | 0.00200 | 0.83312 | 988.3 | 8.9 | 978.0 | 11.0 | 1022 | 16 | 1022.0 | 16.0 | 4.3 | Single Age |
| NAM01_37 | 74.9 | 0.72 | 0.88600 | 0.01300 | 0.10410 | 0.00097 | 0.25066 | 643.6 | 7.3 | 638.3 | 5.7 | 643 | 35 | 638.3 | 5.7 | 0.8 | Single Age |
| NAM01_38 | 199 | 1.08 | 2.41100 | 0.02100 | 0.21150 | 0.00170 | 0.61752 | 1245.6 | 6.3 | 1236.5 | 8.9 | 1263 | 13 | 1263.0 | 13.0 | 2.1 | Single Age |
| NAM01_39 | 202 | 9.24 | 3.55000 | 0.11000 | 0.26020 | 0.00690 | 0.92930 | 1537.0 | 25.0 | 1490.0 | 35.0 | 1598 | 25 | 1598.0 | 25.0 | 6.8 | Rim |
| NAM01_39 | 136.1 | 6.70 | 3.66200 | 0.03200 | 0.26700 | 0.00280 | 0.48552 | 1562.9 | 7.0 | 1525.0 | 14.0 | 1609 | 17 | 1609.0 | 17.0 | 5.2 | Core |
| NAM01_41 | -7.894E-06 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| NAM01_42 | 114.7 | 0.40 | 1.13100 | 0.01900 | 0.12460 | 0.00210 | 0.47279 | 768.0 | 9.0 | 757.0 | 12.0 | 774 | 36 | 757.0 | 12.0 | 1.4 | Single Age |
| NAM01_43 | 144.4 | 0.46 | 1.36700 | 0.01700 | 0.14390 | 0.00190 | 0.44494 | 874.6 | 7.1 | 867.0 | 10.0 | 888 | 31 | 888.0 | 31.0 | 2.4 | Single Age |
| NAM01_44 | 172 | 4.15 | 2.75000 | 0.07100 | 0.23250 | 0.00380 | 0.80896 | 1343.0 | 19.0 | 1347.0 | 20.0 | 1324 | 26 | 1324.0 | 26.0 | 1.7 | Single Age |
| NAM01_45 | 121.7 | 1.09 | 10.27100 | 0.07100 | 0.45730 | 0.00540 | 0.36083 | 2459.4 | 6.4 | 2428.0 | 24.0 | 2476 | 23 | 2476.0 | 23.0 | 1.9 | Rim |
| NAM01_45 | 85.1 | 1.05 | 13.23000 | 0.17000 | 0.50840 | 0.00440 | 0.58764 | 2696.0 | 12.0 | 2649.0 | 19.0 | 2726 | 21 | 2726.0 | 21.0 | 2.8 | Core |
| NAM01_46 | 144.2 | 0.84 | 0.68200 | 0.00740 | 0.08426 | 0.00077 | 0.15251 | 527.8 | 4.4 | 521.5 | 4.6 | 543 | 27 | 521.5 | 4.6 | 1.2 | Single Age |
| NAM01_47 | 265 | 2.40 | 1.06600 | 0.03700 | 0.10310 | 0.00200 | 0.52686 | 736.0 | 18.0 | 632.0 | 12.0 | 1061 | 54 | DISC | DISC | 14.1 | Rim |
| NAM01_47 | 302 | 1.15 | 12.95000 | 0.10000 | 0.46790 | 0.00430 | 0.72553 | 2675.7 | 7.6 | 2474.0 | 19.0 | 2827 | 13 | 2827.0 | 13.0 | 12.5 | Core |
| NAM01_48 | 162.8 | 1.32 | 1.60200 | 0.01600 | 0.16110 | 0.00130 | 0.46919 | 970.5 | 6.3 | 962.7 | 7.2 | 980 | 20 | 980.0 | 20.0 | 1.8 | Single Age |
| NAM01_49 | 255.3 | 0.69 | 1.48900 | 0.01300 | 0.15100 | 0.00160 | 0.64240 | 925.5 | 5.4 | 906.2 | 8.8 | 966 | 20 | 966.0 | 20.0 | 6.2 | Single Age |
| NAM01_50 | 0.0062 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| NAM01_51 | 1328 | 59.00 | 1.41900 | 0.03100 | 0.14680 | 0.00350 | 0.77998 | 897.0 | 13.0 | 883.0 | 20.0 | 936 | 23 | 936.0 | 23.0 | 5.7 | Rim |
| NAM01_51 | 229 | 1.87 | 1.57600 | 0.02000 | 0.15920 | 0.00160 | 0.53611 | 960.2 | 7.8 | 952.3 | 9.0 | 966 | 22 | 966.0 | 22.0 | 1.4 | Core |
| NAM01_52 | 159 | 1.76 | 1.25100 | 0.01400 | 0.13270 | 0.00160 | 0.40702 | 824.2 | 6.6 | 803.1 | 8.9 | 874 | 26 | 803.1 | 8.9 | 2.6 | Single Age |
| NAM01_53 | 101 | 1.00 | 1.99300 | 0.02600 | 0.18690 | 0.00240 | 0.33983 | 1112.9 | 8.9 | 1105.0 | 13.0 | 1118 | 29 | 1118.0 | 29.0 | 1.2 | Single Age |
| NAM01_54 | 333 | 1.58 | 0.70900 | 0.01200 | 0.08530 | 0.00120 | 0.54678 | 543.7 | 7.2 | 527.6 | 6.9 | 592 | 26 | 527.6 | 6.9 | 3.0 | Rim |
| NAM01_54 | 108.1 | 0.66 | 1.78000 | 0.05000 | 0.16490 | 0.00350 | 0.68747 | 1037.0 | 18.0 | 984.0 | 19.0 | 1109 | 27 | 1109.0 | 27.0 | 11.3 | Core |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NAM01_55 | 255 | 1.26 | 0.65050 | 0.00650 | 0.08174 | 0.00083 | 0.27287 | 508.6 | 4.0 | 506.4 | 4.9 | 508 | 21 | 506.4 | 4.9 | 0.4 | Single Age |
| NAM01_56 | 150.3 | 0.79 | 0.66730 | 0.00950 | 0.08360 | 0.00092 | 0.40242 | 518.7 | 5.8 | 517.5 | 5.5 | 515 | 31 | 517.5 | 5.5 | 0.2 | Single Age |
| NAM01_57 | 216 | 0.68 | 10.37600 | 0.09100 | 0.45050 | 0.00490 | 0.42439 | 2470.2 | 7.7 | 2397.0 | 22.0 | 2526 | 16 | 2526.0 | 16.0 | 5.1 | Single Age |
| NAM01_58 | 36.6 | 0.97 | 1.26600 | 0.03100 | 0.13400 | 0.00210 | 0.32226 | 839.0 | 13.0 | 811.0 | 12.0 | 881 | 51 | 811.0 | 12.0 | 3.3 | Single Age |
| NAM01_59 | 218 | 0.55 | 1.51900 | 0.01300 | 0.15640 | 0.00140 | 0.43787 | 937.8 | 5.2 | 936.8 | 7.6 | 944 | 20 | 944.0 | 20.0 | 0.8 | Single Age |
| NAM01_60 | 64.3 | 0.43 | 0.68500 | 0.01600 | 0.08640 | 0.00130 | 0.49548 | 528.7 | 9.5 | 533.9 | 7.6 | 503 | 43 | 533.9 | 7.6 | 1.0 | Single Age |
| NAM01_61 | 79.3 | 0.26 | 1.87700 | 0.02200 | 0.17980 | 0.00180 | 0.43193 | 1072.3 | 7.8 | 1065.5 | 9.9 | 1086 | 23 | 1086.0 | 23.0 | 1.9 | Single Age |
| NAM01_62 | 207.2 | 0.52 | 0.65710 | 0.00960 | 0.07960 | 0.00120 | 0.48600 | 512.6 | 5.9 | 493.9 | 6.9 | 597 | 32 | 493.9 | 6.9 | 3.6 | Single Age |
| NAM01_63 | 45.6 | 0.81 | 10.08000 | 0.11000 | 0.44360 | 0.00450 | 0.65049 | 2441.0 | 10.0 | 2366.0 | 20.0 | 2508 | 14 | 2508.0 | 14.0 | 5.7 | Single Age |
| NAM01_64 | 284 | 0.92 | 14.12000 | 0.17000 | 0.52090 | 0.00540 | 0.89554 | 2758.0 | 12.0 | 2703.0 | 23.0 | 2798 | 14 | 2798.0 | 14.0 | 3.4 | Single Age |
| NAM01_65 | 444 | 2.69 | 1.94500 | 0.01600 | 0.18480 | 0.00150 | 0.62972 | 1097.3 | 5.5 | 1093.0 | 7.9 | 1101 | 15 | 1101.0 | 15.0 | 0.7 | Single Age |
| NAM01_66 | 112 | 1.21 | 1.16300 | 0.01600 | 0.13030 | 0.00210 | 0.83502 | 785.9 | 8.5 | 790.0 | 12.0 | 785 | 26 | 790.0 | 12.0 | 0.5 | Single Age |
| NAM01_67 | 18.22 | 0.67 | 0.55100 | 0.02100 | 0.07100 | 0.00170 | 0.15036 | 446.0 | 14.0 | 442.0 | 10.0 | 446 | 90 | 442.0 | 10.0 | 0.9 | Single Age |
| NAM01_68 | 1063 | 18.00 | 5.46000 | 0.04300 | 0.32970 | 0.00220 | 0.51327 | 1894.0 | 6.8 | 1837.0 | 11.0 | 1959 | 13 | 1959.0 | 13.0 | 6.2 | Single Age |
| NAM01_69 | 124 | 1.01 | 2.16100 | 0.03200 | 0.19720 | 0.00270 | 0.49257 | 1168.0 | 10.0 | 1160.0 | 15.0 | 1162 | 31 | 1162.0 | 31.0 | 0.2 | Single Age |
| NAM01_70 | 245 | 1.61 | 1.64500 | 0.01300 | 0.16330 | 0.00140 | 0.59811 | 987.5 | 4.8 | 974.8 | 8.0 | 1005 | 16 | 1005.0 | 16.0 | 3.0 | Single Age |
| NAM01_71 | 1551 | 2.09 | 8.66000 | 0.13000 | 0.38700 | 0.00590 | 0.92597 | 2304.0 | 13.0 | 2113.0 | 28.0 | 2477 | 10 | 2477.0 | 10.0 | 14.7 | Single Age |
| NAM01_72 | 24.7 | 0.65 | 1.12000 | 0.02700 | 0.12460 | 0.00170 | 0.27794 | 764.0 | 13.0 | 757.0 | 9.9 | 803 | 54 | 757.0 | 9.9 | 0.9 | Single Age |
| NAM01_73 | 180 | 0.73 | 0.64400 | 0.01000 | 0.08166 | 0.00083 | 0.15036 | 504.7 | 6.3 | 506.0 | 4.9 | 527 | 34 | 506.0 | 4.9 | 0.3 | Single Age |
| NAM01_74 | 182 | 2.23 | 30.87000 | 0.24000 | 0.68700 | 0.00560 | 0.78804 | 3514.4 | 7.5 | 3371.0 | 21.0 | 3604 | 8 | 3603.5 | 7.7 | 6.5 | Single Age |
| NAM01_75 | 635 | 2.97 | - | - | - | - | - | - | - | - | - | 949 | 15 | - | - | - | Single Age |
| NAM01_76 | 192 | 0.53 | 2.16600 | 0.01500 | 0.19580 | 0.00140 | 0.57297 | 1170.0 | 4.9 | 1152.4 | 7.8 | 1213 | 14 | 1213.0 | 14.0 | 5.0 | Single Age |
| NAM01_77 | 31.01 | 0.43 | 4.40500 | 0.05200 | 0.30300 | 0.00380 | 0.52011 | 1712.4 | 9.7 | 1705.0 | 19.0 | 1733 | 22 | 1733.0 | 22.0 | 1.6 | Single Age |
| NAM01_78 | 227.5 | 4.05 | 2.14200 | 0.02200 | 0.19440 | 0.00210 | 0.67593 | 1161.8 | 7.0 | 1145.0 | 11.0 | 1194 | 18 | 1194.0 | 18.0 | 4.1 | Single Age |
| NAM01_79 | 100 | 1.69 | 1.18700 | 0.01500 | 0.13050 | 0.00170 | 0.48004 | 796.2 | 6.8 | 790.7 | 9.6 | 797 | 25 | 790.7 | 9.6 | 0.7 | Single Age |
| NAM01_80 | 87.5 | 0.47 | 2.07900 | 0.02600 | 0.19430 | 0.00220 | 0.50473 | 1141.4 | 8.5 | 1144.0 | 12.0 | 1142 | 25 | 1142.0 | 25.0 | 0.2 | Single Age |
| NAM01_81 | 208 | 0.81 | 8.43000 | 0.11000 | 0.38600 | 0.00510 | 0.79357 | 2277.0 | 11.0 | 2104.0 | 23.0 | 2444 | 12 | 2444.0 | 12.0 | 13.9 | Single Age |
| NAM01_82 | 432 | 3.15 | - | - | - | - | - | - | - | - | - | 2516 | 11 | - | - | - | Single Age |
| NAM01_83 | 1.838 | 0.76 | 89.10000 | 2.30000 | 0.79500 | 0.02100 | 0.74168 | 4580.0 | 27.0 | 3792.0 | 73.0 | 5000 | 37 | 5000.0 | 37.0 | 24.2 | Single Age |
| NAM01_84 | 1394 | 9.53 | 9.14000 | 0.15000 | 0.39700 | 0.00740 | 0.92157 | 2352.0 | 15.0 | 2154.0 | 34.0 | 2541 | 11 | 2541.0 | 11.0 | 15.2 | Rim |
| NAM01_84 | 729 | 8.90 | 32.02000 | 0.99000 | 0.72000 | 0.02700 | 0.89144 | 3550.0 | 30.0 | 3490.0 | 100.0 | 3609 | 25 | 3609.0 | 25.0 | 3.3 | Core |
| NAM01_85 | 235 | 0.99 | 1.27700 | 0.01300 | 0.13810 | 0.00150 | 0.64349 | 835.0 | 5.9 | 833.8 | 8.3 | 846 | 20 | 833.8 | 8.3 | 0.1 | Single Age |
| NAM01_86 | 439 | 0.97 | 1.64000 | 0.01100 | 0.16580 | 0.00100 | 0.55457 | 985.4 | 4.1 | 988.8 | 5.7 | 992 | 13 | 992.0 | 13.0 | 0.3 | Single Age |
| NAM01_87 | 224.3 | 0.75 | 1.26900 | 0.01200 | 0.13840 | 0.00110 | 0.43749 | 831.6 | 5.2 | 835.6 | 6.3 | 833 | 20 | 835.6 | 6.3 | 0.5 | Single Age |
| NAM01_88 | 48.7 | 0.76 | 1.57600 | 0.02500 | 0.16050 | 0.00200 | 0.15015 | 960.1 | 9.7 | 959.0 | 11.0 | 984 | 33 | 984.0 | 33.0 | 2.5 | Single Age |
| NAM01_89 | 40.6 | 1.60 | 1.50200 | 0.02800 | 0.15080 | 0.00210 | 0.34789 | 930.0 | 11.0 | 905.0 | 12.0 | 972 | 43 | 972.0 | 43.0 | 6.9 | Single Age |
| NAM01_90 | 53.5 | 1.53 | 1.16700 | 0.02000 | 0.12880 | 0.00160 | 0.48962 | 784.5 | 9.5 | 780.6 | 9.4 | 796 | 31 | 780.6 | 9.4 | 0.5 | Single Age |
| NAM01_92 | 280 | 0.61 | 0.68780 | 0.00780 | 0.08579 | 0.00093 | 0.54462 | 531.2 | 4.7 | 530.6 | 5.6 | 539 | 23 | 530.6 | 5.6 | 0.1 | Single Age |
| NAM01_93 | 224 | 0.99 | 1.60000 | 0.02000 | 0.16090 | 0.00140 | 0.52069 | 971.3 | 7.3 | 961.9 | 7.6 | 988 | 21 | 988.0 | 21.0 | 2.6 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NAM01_94 | 61.5 | 0.60 | 13.80000 | 0.15000 | 0.52550 | 0.00730 | 0.80288 | 2735.0 | 11.0 | 2721.0 | 31.0 | 2753 | 14 | 2753.0 | 14.0 | 1.2 | Single Age |
| NAM01_95 | 50.2 | 1.66 | - | - | - | - | - | - | - | - | - | 1112 | 32 | - | - | - | Single Age |
| NAM01_96 | 204 | 1.02 | 1.60200 | 0.01300 | 0.15910 | 0.00140 | 0.43558 | 970.9 | 4.9 | 951.9 | 7.7 | 1013 | 19 | 1013.0 | 19.0 | 6.0 | Single Age |
| NAM01_97 | 323 | 1.06 | 10.55300 | 0.07100 | 0.46800 | 0.00340 | 0.78326 | 2485.0 | 6.2 | 2475.0 | 15.0 | 2495 | 8 | 2494.9 | 8.0 | 0.8 | Single Age |
| NAM01_98 | 364 | 2.55 | 2.81700 | 0.04800 | 0.22390 | 0.00560 | 0.62295 | 1360.0 | 13.0 | 1302.0 | 29.0 | 1467 | 38 | 1467.0 | 38.0 | 11.2 | Rim |
| NAM01_98 | 383 | 6.02 | 9.03000 | 0.17000 | 0.41440 | 0.00760 | 0.74971 | 2340.0 | 17.0 | 2235.0 | 34.0 | 2435 | 21 | 2435.0 | 21.0 | 8.2 | Core |
| NAM01_99 | 47.3 | 0.14 | 9.79300 | 0.08200 | 0.44800 | 0.00370 | 0.43258 | 2415.9 | 7.6 | 2386.0 | 16.0 | 2448 | 15 | 2448.0 | 15.0 | 2.5 | Single Age |
| NAM01_100 | 96 | 0.69 | 0.65900 | 0.00870 | 0.08038 | 0.00099 | 0.07399 | 513.7 | 5.3 | 498.3 | 5.9 | 596 | 36 | 498.3 | 5.9 | 3.0 | Single Age |
| NAM01_101 | 54.8 | 0.70 | 0.68800 | 0.01800 | 0.08390 | 0.00200 | 0.31696 | 533.0 | 10.0 | 519.0 | 12.0 | 586 | 67 | 519.0 | 12.0 | 2.6 | Single Age |
| NAM01_102 | 350 | 5.41 | 1.93200 | 0.01300 | 0.18320 | 0.00100 | 0.60974 | 1091.9 | 4.4 | 1084.2 | 5.5 | 1109 | 12 | 1109.0 | 12.0 | 2.2 | Single Age |
| NAM01_103 | 18.94 | 0.66 | 1.10300 | 0.02800 | 0.12620 | 0.00260 | 0.16879 | 755.0 | 14.0 | 766.0 | 15.0 | 695 | 63 | 766.0 | 15.0 | 1.5 | Single Age |
| NAM01_104 | 38 | 2.53 | 1.02700 | 0.02300 | 0.11790 | 0.00200 | 0.58302 | 718.0 | 11.0 | 718.0 | 11.0 | 705 | 42 | 718.0 | 11.0 | 0.0 | Single Age |
| NAM01_105 | 1271 | 0.90 | 0.65900 | 0.01100 | 0.08050 | 0.00130 | 0.76281 | 514.2 | 6.9 | 499.4 | 7.6 | 593 | 27 | 499.4 | 7.6 | 2.9 | Single Age |
| NAM01_106 | 58.4 | 1.28 | 1.42700 | 0.02900 | 0.14600 | 0.00230 | 0.37772 | 903.0 | 12.0 | 878.0 | 13.0 | 953 | 43 | 953.0 | 43.0 | 7.9 | Single Age |
| NAM01_107 | 0.00055 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| NAM01_108 | 100.7 | 0.95 | 2.66600 | 0.03800 | 0.22650 | 0.00300 | 0.64826 | 1319.0 | 11.0 | 1316.0 | 16.0 | 1316 | 19 | 1316.0 | 19.0 | 0.0 | Single Age |
| NAM01_109 | 230 | 2.79 | 1.79300 | 0.01800 | 0.17710 | 0.00170 | 0.71785 | 1042.5 | 6.5 | 1051.2 | 9.3 | 1015 | 17 | 1015.0 | 17.0 | 3.6 | Single Age |
| NAM01_110 | 107 | 0.76 | 1.34000 | 0.01800 | 0.14380 | 0.00170 | 0.39079 | 862.6 | 7.6 | 866.3 | 9.4 | 849 | 25 | 849.0 | 9.4 | 0.4 | Single Age |
| NAM01_111 | 172.9 | 0.81 | 1.71100 | 0.01300 | 0.17020 | 0.00160 | 0.26961 | 1013.0 | 4.8 | 1013.4 | 8.9 | 1001 | 21 | 1001.0 | 21.0 | 1.2 | Single Age |
| NAM01_112 | 270 | 0.80 | 1.46000 | 0.01300 | 0.15240 | 0.00140 | 0.59478 | 914.0 | 5.5 | 914.6 | 7.9 | 900 | 16 | 900.0 | 16.0 | 1.6 | Single Age |
| NAM01_113 | 44.5 | 0.72 | 10.21000 | 0.10000 | 0.45800 | 0.00510 | 0.46649 | 2453.3 | 9.4 | 2430.0 | 22.0 | 2477 | 19 | 2477.0 | 19.0 | 1.9 | Single Age |
| NAM01_114 | 81.4 | 1.03 | 0.49800 | 0.01100 | 0.06519 | 0.00082 | 0.37147 | 409.7 | 7.5 | 407.0 | 4.9 | 431 | 49 | 407.0 | 4.9 | 0.7 | Single Age |
| NAM01_115 | 198 | 1.09 | 5.16300 | 0.05500 | 0.32970 | 0.00380 | 0.69031 | 1846.2 | 9.1 | 1837.0 | 18.0 | 1861 | 16 | 1861.0 | 16.0 | 1.3 | Single Age |
| NAM01_116 | 49.1 | 0.38 | 0.65100 | 0.01400 | 0.08270 | 0.00130 | 0.08298 | 509.4 | 9.0 | 512.3 | 7.8 | 480 | 57 | 512.3 | 7.8 | 0.6 | Single Age |
| NAM01_117 | 123 | 1.02 | 1.42600 | 0.03200 | 0.15050 | 0.00270 | 0.61244 | 898.0 | 13.0 | 903.0 | 15.0 | 877 | 36 | 877.0 | 36.0 | 3.0 | Single Age |
| NAM01_118 | 1079 | 2.38 | 0.86700 | 0.01500 | 0.10270 | 0.00190 | 0.86463 | 633.9 | 8.0 | 630.0 | 11.0 | 658 | 19 | 630.0 | 11.0 | 0.6 | Single Age |
| NAM01_119 | 236 | 0.39 | 0.67330 | 0.00910 | 0.08358 | 0.00079 | 0.40171 | 522.4 | 5.5 | 517.4 | 4.7 | 537 | 27 | 517.4 | 4.7 | 1.0 | Single Age |
| NAM01_120 | 235.3 | 1.10 | 1.41400 | 0.01300 | 0.14790 | 0.00100 | 0.47185 | 894.5 | 5.3 | 889.3 | 5.6 | 906 | 17 | 906.0 | 17.0 | 1.8 | Single Age |
| 15HP33_1 | 501 | 1.81 | 3.44200 | 0.08800 | 0.20650 | 0.00600 | 0.65292 | 1513.0 | 19.0 | 1210.0 | 32.0 | 1949 | 39 | DISC | DISC | 37.9 | Single Age |
| 15HP33_2 | 217 | 0.94 | 0.68200 | 0.01600 | 0.08420 | 0.00150 | 0.24044 | 527.1 | 9.8 | 521.1 | 8.7 | 569 | 55 | 521.1 | 8.7 | 1.1 | Single Age |
| 15HP33_3 | 469 | 2.17 | 0.63600 | 0.01100 | 0.07760 | 0.00190 | 0.24716 | 499.2 | 7.0 | 481.0 | 11.0 | 556 | 60 | 481.0 | 11.0 | 3.6 | Single Age |
| 15HP33_4 | 110.4 | 0.21 | 0.76500 | 0.02100 | 0.09480 | 0.00230 | 0.20287 | 576.0 | 12.0 | 584.0 | 13.0 | 512 | 72 | 584.0 | 13.0 | 1.4 | Single Age |
| 15HP33_5 | 138 | 1.22 | 19.68000 | 0.34000 | 0.56230 | 0.00920 | 0.65049 | 3074.0 | 17.0 | 2875.0 | 38.0 | 3182 | 22 | 3182.0 | 22.0 | 9.6 | Single Age |
| 15HP33_6 | 250 | 1.97 | 2.21900 | 0.03000 | 0.19960 | 0.00240 | 0.50382 | 1186.4 | 9.4 | 1173.0 | 13.0 | 1190 | 24 | 1190.0 | 24.0 | 1.4 | Single Age |
| 15HP33_7 | 46.4 | 1.20 | 0.14100 | 0.02100 | 0.01810 | 0.00110 | 0.10754 | 135.0 | 19.0 | 115.8 | 6.8 | 470 | 300 | DISC | DISC | 14.2 | Single Age |
| 15HP33_8 | 376 | 1.83 | 4.61000 | 0.04300 | 0.31370 | 0.00370 | 0.62259 | 1751.6 | 7.6 | 1758.0 | 18.0 | 1741 | 18 | 1741.0 | 18.0 | 1.0 | Single Age |
| 15HP33_9 | 42.5 | 0.51 | 0.68600 | 0.04500 | 0.08120 | 0.00270 | 0.13494 | 525.0 | 27.0 | 506.0 | 15.0 | 590 | 140 | 506.0 | 15.0 | 3.6 | Single Age |
| 15HP33_10 | 207.3 | 0.96 | 10.87000 | 0.14000 | 0.47220 | 0.00710 | 0.71046 | 2512.0 | 12.0 | 2492.0 | 31.0 | 2520 | 17 | 2520.0 | 17.0 | 1.1 | Single Age |
| 15HP33_11 | 171 | 0.78 | 1.33000 | 0.02700 | 0.14070 | 0.00240 | 0.48186 | 860.0 | 12.0 | 848.0 | 14.0 | 879 | 38 | 848.0 | 14.0 | 1.4 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP33_12 | 107.6 | 0.72 | 6.31000 | 0.18000 | 0.29500 | 0.00770 | 0.52225 | 2020.0 | 24.0 | 1665.0 | 38.0 | 2401 | 45 | DISC | DISC | 30.7 | Single Age |
| 15HP33_13 | 479 | 10.53 | 1.78600 | 0.02700 | 0.17300 | 0.00260 | 0.58966 | 1041.0 | 10.0 | 1028.0 | 15.0 | 1079 | 28 | 1079.0 | 28.0 | 4.7 | Single Age |
| 15HP33_14 | 35.4 | 0.30 | 0.67900 | 0.05000 | 0.07610 | 0.00320 | 0.08949 | 525.0 | 29.0 | 472.0 | 19.0 | 770 | 170 | DISC | DISC | 10.1 | Single Age |
| 15HP33_15 | 600 | 12.50 | 1.59500 | 0.02500 | 0.15950 | 0.00200 | 0.44642 | 967.6 | 9.6 | 954.0 | 11.0 | 986 | 29 | 986.0 | 29.0 | 3.2 | Single Age |
| 15HP33_16 | 77.2 | 0.88 | 0.72800 | 0.02300 | 0.08610 | 0.00210 | 0.27396 | 555.0 | 14.0 | 532.0 | 13.0 | 632 | 82 | 532.0 | 13.0 | 4.1 | Single Age |
| 15HP33_17 | 186.6 | 0.66 | 2.16400 | 0.03500 | 0.19750 | 0.00230 | 0.38497 | 1168.0 | 11.0 | 1163.0 | 12.0 | 1187 | 30 | 1187.0 | 30.0 | 2.0 | Single Age |
| 15HP33_18 | 134 | 0.57 | 0.70100 | 0.02900 | 0.07590 | 0.00240 | 0.04579 | 541.0 | 16.0 | 472.0 | 15.0 | 880 | 110 | DISC | DISC | 12.8 | Single Age |
| 15HP33_19 | 176 | 1.86 | 1.93700 | 0.04900 | 0.14600 | 0.00360 | 0.63133 | 1096.0 | 18.0 | 878.0 | 20.0 | 1569 | 42 | DISC | DISC | 44.0 | Single Age |
| 15HP33_20 | 83.8 | 0.59 | 2.07800 | 0.04400 | 0.19320 | 0.00330 | 0.40654 | 1143.0 | 15.0 | 1138.0 | 18.0 | 1173 | 44 | 1173.0 | 44.0 | 3.0 | Single Age |
| 15HP33_21 | 542 | 2.85 | 0.91100 | 0.01200 | 0.10780 | 0.00130 | 0.37361 | 658.1 | 6.2 | 660.6 | 7.8 | 666 | 31 | 660.6 | 7.8 | 0.4 | Single Age |
| 15HP33_22 | 352 | 1.89 | 1.56300 | 0.02100 | 0.15780 | 0.00190 | 0.58816 | 955.2 | 8.1 | 944.0 | 11.0 | 985 | 24 | 985.0 | 24.0 | 4.2 | Single Age |
| 15HP33_23 | 569 | 1.68 | 4.62800 | 0.06000 | 0.31320 | 0.00450 | 0.75110 | 1753.0 | 11.0 | 1756.0 | 22.0 | 1769 | 19 | 1769.0 | 19.0 | 0.7 | Single Age |
| 15HP33_24 | 50.9 | 0.95 | 0.24600 | 0.02100 | 0.02140 | 0.00100 | 0.01707 | 226.0 | 16.0 | 136.4 | 6.4 | 1280 | 180 | DISC | DISC | 39.6 | Single Age |
| 15HP33_25 | 323 | 5.92 | 1.40200 | 0.03000 | 0.14580 | 0.00220 | 0.59048 | 888.0 | 13.0 | 877.0 | 12.0 | 920 | 32 | 920.0 | 32.0 | 4.7 | Single Age |
| 15HP33_26 | 220 | 77.90 | 0.69500 | 0.01500 | 0.08650 | 0.00140 | 0.48123 | 535.0 | 9.3 | 534.7 | 8.4 | 549 | 45 | 534.7 | 8.4 | 0.1 | Single Age |
| 15HP33_27 | 437.3 | 3.43 | 0.81300 | 0.07100 | 0.09430 | 0.00540 | 0.69074 | 601.0 | 40.0 | 580.0 | 32.0 | 640 | 120 | 580.0 | 32.0 | 3.5 | Single Age |
| 15HP33_28 | 292 | 4.48 | 1.33700 | 0.02500 | 0.14410 | 0.00250 | 0.61929 | 861.0 | 11.0 | 867.0 | 14.0 | 864 | 33 | 864.0 | 33.0 | 0.3 | Single Age |
| 15HP33_29 | 116 | 0.68 | 3.42000 | 0.11000 | 0.25680 | 0.00680 | 0.49492 | 1513.0 | 26.0 | 1473.0 | 35.0 | 1547 | 49 | 1547.0 | 49.0 | 4.8 | Single Age |
| 15HP33_30 | 403 | 0.88 | 2.95100 | 0.04100 | 0.22520 | 0.00240 | 0.50756 | 1396.0 | 11.0 | 1309.0 | 13.0 | 1544 | 23 | 1544.0 | 23.0 | 15.2 | Single Age |
| 15HP33_31 | 64 | 3.20 | 0.81100 | 0.02800 | 0.09780 | 0.00240 | 0.21959 | 603.0 | 15.0 | 601.0 | 14.0 | 578 | 80 | 601.0 | 14.0 | 0.3 | Single Age |
| 15HP33_32 | 100 | 0.48 | 0.14230 | 0.00930 | 0.02061 | 0.00067 | 0.26175 | 134.4 | 8.3 | 131.5 | 4.2 | 190 | 130 | 131.5 | 4.2 | 2.2 | Single Age |
| 15HP33_33 | 940 | 4.85 | 0.65200 | 0.01700 | 0.08180 | 0.00170 | 0.67232 | 509.0 | 11.0 | 507.0 | 10.0 | 553 | 42 | 507.0 | 10.0 | 0.4 | Single Age |
| 15HP33_34 | 87.2 | 1.76 | 0.21100 | 0.02200 | 0.02230 | 0.00120 | 0.02850 | 197.0 | 19.0 | 142.0 | 7.4 | 830 | 240 | DISC | DISC | 27.9 | Single Age |
| 15HP33_35 | 290 | 6.30 | 1.78700 | 0.06600 | 0.17490 | 0.00470 | 0.80701 | 1041.0 | 24.0 | 1038.0 | 25.0 | 1037 | 42 | 1037.0 | 42.0 | 0.1 | Single Age |
| 15HP33_36 | 426 | 2.30 | 0.70900 | 0.01000 | 0.08830 | 0.00140 | 0.32573 | 544.0 | 6.1 | 545.1 | 8.2 | 549 | 41 | 545.1 | 8.2 | 0.2 | Single Age |
| 15HP33_37 | 266 | 2.66 | 1.84200 | 0.07900 | 0.17860 | 0.00560 | 0.84084 | 1064.0 | 30.0 | 1059.0 | 31.0 | 1043 | 45 | 1043.0 | 45.0 | 1.5 | Single Age |
| 15HP33_38 | 131 | 1.34 | 0.30200 | 0.02000 | 0.03890 | 0.00140 | 0.22672 | 267.0 | 16.0 | 245.9 | 8.9 | 440 | 140 | 245.9 | 8.9 | 7.9 | Single Age |
| 15HP33_39 | 32.3 | 1.47 | 0.17400 | 0.02800 | 0.01910 | 0.00140 | 0.14475 | 164.0 | 25.0 | 122.0 | 8.8 | 660 | 340 | DISC | DISC | 25.6 | Single Age |
| 15HP33_40 | 23.42 | 1.46 | 0.15800 | 0.02700 | 0.01950 | 0.00160 | 0.14470 | 146.0 | 24.0 | 124.5 | 9.9 | 560 | 400 | DISC | DISC | 14.7 | Single Age |
| 15HP33_41 | 186 | 0.59 | 4.59600 | 0.07700 | 0.31440 | 0.00420 | 0.59010 | 1751.0 | 13.0 | 1765.0 | 20.0 | 1734 | 24 | 1734.0 | 24.0 | 1.8 | Single Age |
| 15HP33_42 | 22.9 | 1.02 | 1.18400 | 0.09200 | 0.12600 | 0.00570 | 0.03747 | 783.0 | 44.0 | 775.0 | 32.0 | 850 | 170 | 775.0 | 32.0 | 1.0 | Single Age |
| 15HP33_43 | 230 | 8.80 | 12.75000 | 0.19000 | 0.51150 | 0.00690 | 0.79360 | 2660.0 | 14.0 | 2662.0 | 29.0 | 2652 | 17 | 2652.0 | 17.0 | 0.4 | Single Age |
| 15HP33_44 | 178 | 22.30 | 12.49000 | 0.14000 | 0.51200 | 0.00700 | 0.73549 | 2641.0 | 10.0 | 2664.0 | 30.0 | 2629 | 16 | 2629.0 | 16.0 | 1.3 | Single Age |
| 15HP33_45 | 722 | 2.71 | 0.77700 | 0.03100 | 0.09320 | 0.00410 | 0.73311 | 583.0 | 18.0 | 574.0 | 24.0 | 677 | 50 | 574.0 | 24.0 | 1.5 | Rim |
| 15HP33_45 | 388 | 1.57 | 1.57100 | 0.02900 | 0.14880 | 0.00320 | 0.02813 | 959.0 | 11.0 | 894.0 | 18.0 | 1090 | 55 | 1090.0 | 55.0 | 18.0 | Core |
| 15HP33_46 | 491 | 2.51 | 1.33100 | 0.02000 | 0.14440 | 0.00180 | 0.48306 | 858.8 | 8.8 | 870.0 | 10.0 | 851 | 28 | 851.0 | 28.0 | 2.2 | Single Age |
| 15HP33_47 | 42.8 | 1.30 | 0.17000 | 0.02200 | 0.01820 | 0.00150 | 0.04756 | 157.0 | 19.0 | 116.1 | 9.3 | 890 | 300 | DISC | DISC | 26.1 | Single Age |
| 15HP33_48 | 98 | 0.92 | 24.73000 | 0.29000 | 0.68650 | 0.00980 | 0.61284 | 3296.0 | 12.0 | 3367.0 | 37.0 | 3253 | 18 | 3253.0 | 18.0 | 3.5 | Single Age |
| 15HP33_49 | 648 | 5.13 | 2.24200 | 0.03000 | 0.20360 | 0.00340 | 0.62146 | 1194.0 | 9.5 | 1194.0 | 18.0 | 1205 | 27 | 1205.0 | 27.0 | 0.9 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP33_50 | 135.6 | 0.77 | 0.09110 | 0.00940 | 0.01151 | 0.00057 | 0.07522 | 88.1 | 8.7 | 73.8 | 3.6 | 410 | 220 | DISC | DISC | 16.2 | Single Age |
| 15HP33_51 | 428 | 0.86 | 0.08580 | 0.00360 | 0.01235 | 0.00029 | 0.27239 | 83.9 | 3.5 | 79.1 | 1.9 | 244 | 83 | 79.1 | 1.9 | 5.7 | Single Age |
| 15HP33_52 | 168.1 | 1.43 | 3.16200 | 0.04900 | 0.25000 | 0.00340 | 0.59022 | 1448.0 | 12.0 | 1438.0 | 18.0 | 1472 | 26 | 1472.0 | 26.0 | 2.3 | Single Age |
| 15HP33_53 | 39 | 2.03 | 4.26000 | 0.11000 | 0.30630 | 0.00680 | 0.31196 | 1689.0 | 23.0 | 1722.0 | 34.0 | 1672 | 50 | 1672.0 | 50.0 | 3.0 | Single Age |
| 15HP33_54 | 25.3 | 0.75 | 0.13700 | 0.02300 | 0.01750 | 0.00120 | 0.00562 | 129.0 | 21.0 | 111.7 | 7.7 | 280 | 320 | DISC | DISC | 13.4 | Single Age |
| 15HP33_55 | 293 | 1.41 | 2.97700 | 0.04100 | 0.24070 | 0.00340 | 0.21073 | 1402.0 | 11.0 | 1390.0 | 18.0 | 1427 | 22 | 1427.0 | 22.0 | 2.6 | Single Age |
| 15HP33_56 | 213 | 43.90 | 2.24900 | 0.07900 | 0.20260 | 0.00620 | 0.51843 | 1194.0 | 25.0 | 1189.0 | 33.0 | 1159 | 55 | 1159.0 | 55.0 | 2.6 | Rim |
| 15HP33_56 | 120.1 | 1.24 | 2.99600 | 0.06900 | 0.24950 | 0.00500 | 0.46145 | 1405.0 | 18.0 | 1435.0 | 26.0 | 1366 | 47 | 1366.0 | 47.0 | 5.1 | Core |
| 15HP33_57 | 334.2 | 1.61 | 0.15390 | 0.00730 | 0.02075 | 0.00044 | 0.38095 | 145.0 | 6.4 | 132.4 | 2.8 | 341 | 92 | 132.4 | 2.8 | 8.7 | Single Age |
| 15HP33_58 | 193.3 | 1.59 | 2.61700 | 0.06600 | 0.21700 | 0.00530 | 0.45709 | 1304.0 | 19.0 | 1266.0 | 28.0 | 1365 | 47 | 1365.0 | 47.0 | 7.3 | Single Age |
| 15HP33_59 | 485 | 1.56 | 0.30870 | 0.00710 | 0.04232 | 0.00055 | 0.09399 | 272.9 | 5.5 | 267.2 | 3.4 | 316 | 58 | 267.2 | 3.4 | 2.1 | Single Age |
| 15HP33_60 | 749 | 13.10 | 16.67000 | 0.29000 | 0.54850 | 0.00710 | 0.73051 | 2914.0 | 17.0 | 2818.0 | 29.0 | 2991 | 18 | 2991.0 | 18.0 | 5.8 | Single Age |
| 15HP33_61 | 277.4 | 1.54 | 10.41000 | 0.16000 | 0.46680 | 0.00950 | 0.75096 | 2471.0 | 14.0 | 2468.0 | 42.0 | 2496 | 24 | 2496.0 | 24.0 | 1.1 | Single Age |
| 15HP33_62 | 638 | 9.04 | 1.47500 | 0.06900 | 0.15030 | 0.00660 | 0.79905 | 918.0 | 28.0 | 902.0 | 37.0 | 966 | 60 | 966.0 | 60.0 | 6.6 | Single Age |
| 15HP33_63 | 267.7 | 3.44 | 1.90500 | 0.04500 | 0.18630 | 0.00450 | 0.78775 | 1083.0 | 16.0 | 1101.0 | 25.0 | 1028 | 33 | 1028.0 | 33.0 | 7.1 | Single Age |
| 15HP33_64 | 522 | 2.08 | 1.90000 | 0.16000 | 0.15390 | 0.00340 | 0.13969 | 1064.0 | 49.0 | 922.0 | 19.0 | 1330 | 120 | DISC | DISC | 30.7 | Single Age |
| 15HP33_65 | 411 | 3.22 | 0.72500 | 0.05700 | 0.08770 | 0.00660 | 0.77555 | 552.0 | 34.0 | 541.0 | 39.0 | 600 | 120 | 541.0 | 39.0 | 2.0 | Rim |
| 15HP33_65 | 199.3 | 1.56 | 1.58400 | 0.04700 | 0.15110 | 0.00340 | 0.50352 | 962.0 | 18.0 | 907.0 | 19.0 | 1096 | 56 | 1096.0 | 56.0 | 17.2 | Core |
| 15HP33_66 | 678 | 2.94 | 1.56400 | 0.05400 | 0.13960 | 0.00440 | 0.84698 | 954.0 | 22.0 | 842.0 | 25.0 | 1244 | 48 | DISC | DISC | 11.7 | Single Age |
| 15HP33_67 | 179 | 0.47 | 2.13700 | 0.03100 | 0.19540 | 0.00260 | 0.39349 | 1160.0 | 10.0 | 1152.0 | 14.0 | 1167 | 31 | 1167.0 | 31.0 | 1.3 | Single Age |
| 15HP33_68 | 148.3 | 4.08 | 1.02600 | 0.03500 | 0.11470 | 0.00300 | 0.42679 | 720.0 | 17.0 | 700.0 | 17.0 | 821 | 77 | 700.0 | 17.0 | 2.8 | Single Age |
| 15HP33_69 | 297.4 | 2.84 | 5.74000 | 0.16000 | 0.35100 | 0.01000 | 0.89829 | 1934.0 | 25.0 | 1936.0 | 50.0 | 1941 | 23 | 1941.0 | 23.0 | 0.3 | Single Age |
| 15HP33_70 | 386 | 1.84 | 0.70900 | 0.01700 | 0.08680 | 0.00150 | 0.61910 | 544.0 | 10.0 | 536.6 | 8.9 | 567 | 42 | 536.6 | 8.9 | 1.4 | Single Age |
| 15HP33_71 | 273 | 1.23 | 1.38700 | 0.02600 | 0.14500 | 0.00170 | 0.41659 | 884.0 | 11.0 | 872.8 | 9.8 | 881 | 34 | 881.0 | 34.0 | 0.9 | Single Age |
| 15HP33_72 | 362 | 1.53 | 2.77600 | 0.05100 | 0.22770 | 0.00480 | 0.62675 | 1348.0 | 14.0 | 1322.0 | 25.0 | 1401 | 28 | 1401.0 | 28.0 | 5.6 | Single Age |
| 15HP33_73 | 571 | 1.82 | 1.58500 | 0.02000 | 0.16130 | 0.00190 | 0.51091 | 963.8 | 7.8 | 964.0 | 11.0 | 978 | 25 | 978.0 | 25.0 | 1.4 | Single Age |
| 15HP33_74 | 428 | 1.14 | 0.53900 | 0.01200 | 0.06940 | 0.00120 | 0.56257 | 437.2 | 8.2 | 432.6 | 7.0 | 463 | 42 | 432.6 | 7.0 | 1.1 | Single Age |
| 15HP33_75 | 305 | 1.27 | 3.46000 | 0.10000 | 0.24590 | 0.00340 | 0.51518 | 1514.0 | 23.0 | 1417.0 | 18.0 | 1645 | 40 | 1645.0 | 40.0 | 13.9 | Single Age |
| 15HP33_76 | 570 | 4.33 | 1.31300 | 0.04700 | 0.12050 | 0.00220 | 0.66309 | 848.0 | 21.0 | 733.0 | 13.0 | 1174 | 50 | DISC | DISC | 13.6 | Single Age |
| 15HP33_77 | 44.1 | 1.35 | 0.14200 | 0.01800 | 0.02012 | 0.00097 | 0.04532 | 134.0 | 15.0 | 128.4 | 6.1 | 280 | 250 | 128.4 | 6.1 | 4.2 | Single Age |
| 15HP33_78 | 318.8 | 1.79 | 0.79200 | 0.01500 | 0.09550 | 0.00130 | 0.35005 | 592.6 | 8.3 | 587.9 | 7.9 | 593 | 42 | 587.9 | 7.9 | 0.8 | Single Age |
| 15HP33_79 | 901 | 38.90 | 24.54000 | 0.23000 | 0.59680 | 0.00560 | 0.69830 | 3292.4 | 9.2 | 3016.0 | 23.0 | 3450 | 12 | 3450.0 | 12.0 | 12.6 | Single Age |
| 15HP33_80 | 326 | 0.71 | 1.04800 | 0.02600 | 0.11490 | 0.00240 | 0.33806 | 727.0 | 13.0 | 701.0 | 14.0 | 771 | 42 | 701.0 | 14.0 | 3.6 | Single Age |
| 15HP33_81 | 55.1 | 0.86 | 0.23500 | 0.02200 | 0.01910 | 0.00130 | 0.23517 | 213.0 | 18.0 | 122.1 | 8.0 | 1340 | 220 | DISC | DISC | 42.7 | Single Age |
| 15HP33_82 | 512 | 6.42 | 0.92400 | 0.04400 | 0.10720 | 0.00360 | 0.84425 | 663.0 | 24.0 | 656.0 | 21.0 | 721 | 51 | 656.0 | 21.0 | 1.1 | Single Age |
| 15HP33_83 | 153 | 0.90 | 0.17200 | 0.01200 | 0.02181 | 0.00057 | 0.28994 | 160.0 | 10.0 | 139.0 | 3.6 | 460 | 140 | DISC | DISC | 13.1 | Single Age |
| 15HP33_84 | 64.8 | 0.71 | 0.66600 | 0.02900 | 0.08320 | 0.00160 | 0.31007 | 515.0 | 18.0 | 514.8 | 9.4 | 494 | 95 | 514.8 | 9.4 | 0.0 | Single Age |
| 15HP33_85 | 121.9 | 1.10 | 9.57000 | 0.15000 | 0.44190 | 0.00690 | 0.57281 | 2394.0 | 14.0 | 2358.0 | 31.0 | 2430 | 29 | 2430.0 | 29.0 | 3.0 | Single Age |
| 15HP33_86 | 72.9 | 1.21 | 0.13200 | 0.01800 | 0.01870 | 0.00110 | 0.36013 | 125.0 | 16.0 | 119.7 | 6.8 | 460 | 270 | 119.7 | 6.8 | 4.2 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP33_87 | 274 | 3.12 | 12.70000 | 0.19000 | 0.50790 | 0.00810 | 0.81955 | 2657.0 | 14.0 | 2647.0 | 35.0 | 2655 | 16 | 2655.0 | 16.0 | 0.3 | Single Age |
| 15HP33_88 | 37.8 | 0.67 | 4.63000 | 0.19000 | 0.31190 | 0.00760 | 0.23672 | 1757.0 | 33.0 | 1749.0 | 37.0 | 1748 | 66 | 1748.0 | 66.0 | 0.1 | Single Age |
| 15HP33_89 | 104.9 | 1.10 | 0.08440 | 0.00910 | 0.01011 | 0.00069 | 0.11768 | 81.9 | 8.5 | 64.9 | 4.4 | 510 | 290 | DISC | DISC | 20.8 | Single Age |
| 15HP33_90 | 269 | 1.22 | 0.33400 | 0.01200 | 0.04474 | 0.00088 | 0.03778 | 291.5 | 8.8 | 282.1 | 5.4 | 315 | 81 | 282.1 | 5.4 | 3.2 | Single Age |
| 15HP33_91 | 53.5 | 0.81 | 0.56800 | 0.05200 | 0.02440 | 0.00160 | 0.27976 | 451.0 | 34.0 | 155.5 | 9.8 | 2690 | 170 | DISC | DISC | 65.5 | Single Age |
| 15HP33_92 | 263 | 0.59 | 1.77900 | 0.02700 | 0.17330 | 0.00230 | 0.44878 | 1037.0 | 9.9 | 1030.0 | 12.0 | 1076 | 29 | 1076.0 | 29.0 | 4.3 | Single Age |
| 15HP33_93 | 486 | 5.10 | 1.64700 | 0.01800 | 0.16510 | 0.00180 | 0.41113 | 988.0 | 7.0 | 985.0 | 10.0 | 1003 | 23 | 1003.0 | 23.0 | 1.8 | Single Age |
| 15HP33_94 | 61.6 | 1.24 | 0.25400 | 0.02700 | 0.01980 | 0.00120 | 0.07055 | 227.0 | 22.0 | 126.0 | 7.4 | 1510 | 240 | DISC | DISC | 44.5 | Single Age |
| 15HP33_95 | 247 | 1.85 | 2.75400 | 0.06900 | 0.22910 | 0.00460 | 0.95036 | 1342.0 | 19.0 | 1329.0 | 24.0 | 1381 | 46 | 1381.0 | 46.0 | 3.8 | Single Age |
| 15HP33_96 | 487 | 2.35 | 1.02000 | 0.02800 | 0.11450 | 0.00210 | 0.59469 | 713.0 | 14.0 | 699.0 | 12.0 | 786 | 53 | 699.0 | 12.0 | 2.0 | Single Age |
| 15HP33_97 | 604 | 19.70 | - | - | - | - | - | - | - | - | - | 1570 | 130 | - | - | - | Single Age |
| 15HP33_98 | 546 | 3.78 | 0.66600 | 0.02500 | 0.08090 | 0.00150 | 0.21235 | 518.0 | 15.0 | 501.6 | 9.2 | 606 | 76 | 501.6 | 9.2 | 3.2 | Rim |
| 15HP33_98 | 116.2 | 1.62 | 2.32000 | 0.16000 | 0.19600 | 0.01000 | 0.02122 | 1216.0 | 50.0 | 1152.0 | 55.0 | 1340 | 160 | 1340.0 | 160.0 | 14.0 | Core |
| 15HP33_99 | 381 | 2.75 | 1.91400 | 0.04400 | 0.18240 | 0.00300 | 0.43105 | 1085.0 | 15.0 | 1080.0 | 16.0 | 1116 | 42 | 1116.0 | 42.0 | 3.2 | Single Age |
| 15HP33_100 | 477 | 3.51 | 13.01000 | 0.14000 | 0.51810 | 0.00590 | 0.61985 | 2679.0 | 10.0 | 2697.0 | 25.0 | 2690 | 16 | 2690.0 | 16.0 | 0.3 | Single Age |
| 15HP33_101 | 207 | 1.93 | 2.09900 | 0.02900 | 0.19450 | 0.00230 | 0.29115 | 1147.8 | 9.3 | 1145.0 | 12.0 | 1164 | 27 | 1164.0 | 27.0 | 1.6 | Single Age |
| 15HP33_102 | 132 | 1.15 | 1.98200 | 0.06600 | 0.19110 | 0.00480 | 0.55153 | 1106.0 | 22.0 | 1127.0 | 26.0 | 1096 | 53 | 1096.0 | 53.0 | 2.8 | Single Age |
| 15HP33_104 | 46.6 | 1.24 | 0.72100 | 0.03100 | 0.08900 | 0.00220 | 0.23255 | 555.0 | 19.0 | 549.0 | 13.0 | 548 | 95 | 549.0 | 13.0 | 1.1 | Single Age |
| 15HP33_105 | 28.5 | 0.73 | 0.16200 | 0.03000 | 0.02000 | 0.00160 | 0.07103 | 153.0 | 26.0 | 127.0 | 10.0 | 490 | 360 | DISC | DISC | 17.0 | Single Age |
| 15HP33_106 | 37.7 | 1.61 | 9.48000 | 0.30000 | 0.44000 | 0.01300 | 0.62774 | 2382.0 | 29.0 | 2346.0 | 60.0 | 2423 | 42 | 2423.0 | 42.0 | 3.2 | Single Age |
| 15HP33_107 | 364.7 | 4.19 | 1.55000 | 0.03800 | 0.15230 | 0.00270 | 0.63550 | 949.0 | 15.0 | 914.0 | 15.0 | 1054 | 43 | 1054.0 | 43.0 | 13.3 | Single Age |
| 15HP33_108 | 63.9 | 1.31 | 0.18000 | 0.02800 | 0.02230 | 0.00180 | 0.39463 | 171.0 | 25.0 | 142.0 | 11.0 | 560 | 280 | DISC | DISC | 17.0 | Single Age |
| 15HP33_109 | 149.3 | 4.41 | 2.73000 | 0.12000 | 0.23090 | 0.00740 | 0.56131 | 1335.0 | 32.0 | 1339.0 | 39.0 | 1361 | 55 | 1361.0 | 55.0 | 1.6 | Single Age |
| 15HP33_110 | 132 | 1.10 | 2.85600 | 0.07900 | 0.22160 | 0.00470 | 0.56815 | 1369.0 | 21.0 | 1295.0 | 24.0 | 1504 | 49 | 1504.0 | 49.0 | 13.9 | Single Age |
| 15HP33_111 | 97 | 0.47 | 0.67600 | 0.02800 | 0.08630 | 0.00210 | 0.30922 | 526.0 | 16.0 | 534.0 | 12.0 | 464 | 88 | 534.0 | 12.0 | 1.5 | Single Age |
| 15HP33_112 | 177.1 | 1.07 | 0.08600 | 0.00580 | 0.01282 | 0.00041 | 0.16055 | 83.5 | 5.4 | 82.1 | 2.6 | 220 | 140 | 82.1 | 2.6 | 1.7 | Single Age |
| 15HP33_113 | 157.2 | 0.50 | 15.27000 | 0.18000 | 0.54760 | 0.00690 | 0.76960 | 2832.0 | 11.0 | 2814.0 | 29.0 | 2859 | 13 | 2859.0 | 13.0 | 1.6 | Single Age |
| 15HP33_114 | 176 | 1.48 | 8.11000 | 0.15000 | 0.40530 | 0.00820 | 0.67324 | 2247.0 | 17.0 | 2192.0 | 37.0 | 2308 | 28 | 2308.0 | 28.0 | 5.0 | Single Age |
| 15HP33_115 | 184 | 2.30 | 0.73400 | 0.02800 | 0.09000 | 0.00330 | 0.25745 | 564.0 | 19.0 | 555.0 | 20.0 | 603 | 94 | 555.0 | 20.0 | 1.6 | Rim |
| 15HP33_115 | 169 | 2.55 | 1.64400 | 0.03600 | 0.16470 | 0.00420 | 0.46529 | 986.0 | 14.0 | 983.0 | 23.0 | 990 | 45 | 990.0 | 45.0 | 0.7 | Core |
| 15HP33_116 | 172.1 | 1.32 | 0.14250 | 0.00760 | 0.02044 | 0.00063 | 0.25506 | 135.0 | 6.8 | 130.4 | 4.0 | 190 | 110 | 130.4 | 4.0 | 3.4 | Single Age |
| 15HP33_117 | 545 | 5.30 | 0.93200 | 0.01300 | 0.10890 | 0.00130 | 0.10519 | 668.0 | 6.9 | 666.5 | 7.3 | 678 | 30 | 666.5 | 7.3 | 0.2 | Single Age |
| 15HP33_118 | 226 | 0.74 | 0.07160 | 0.00560 | 0.01072 | 0.00036 | 0.17965 | 70.0 | 5.3 | 68.7 | 2.3 | 170 | 160 | 68.7 | 2.3 | 1.9 | Single Age |
| 15HP33_119 | 101.7 | 1.05 | 1.33800 | 0.04300 | 0.13760 | 0.00320 | 0.43552 | 861.0 | 19.0 | 831.0 | 18.0 | 953 | 54 | 831.0 | 18.0 | 3.5 | Single Age |
| 15HP33_120 | 135.3 | 1.01 | 0.61500 | 0.01900 | 0.07670 | 0.00240 | 0.42260 | 488.0 | 12.0 | 476.0 | 14.0 | 483 | 75 | 476.0 | 14.0 | 2.5 | Single Age |
| 15HP34_1 | 53 | 0.86 | 0.86800 | 0.03600 | 0.08510 | 0.00250 | 0.19653 | 634.0 | 19.0 | 526.0 | 15.0 | 1000 | 100 | DISC | DISC | 17.0 | Single Age |
| 15HP34_2 | 269 | 2.22 | 13.10000 | 0.19000 | 0.52100 | 0.01000 | 0.69877 | 2686.0 | 14.0 | 2702.0 | 43.0 | 2672 | 25 | 2672.0 | 25.0 | 1.1 | Single Age |
| 15HP34_3 | 361 | 6.00 | 10.53000 | 0.12000 | 0.47320 | 0.00640 | 0.74419 | 2482.0 | 10.0 | 2497.0 | 28.0 | 2471 | 15 | 2471.0 | 15.0 | 1.1 | Single Age |
| 15HP34_4 | 82.5 | 0.48 | 11.04000 | 0.16000 | 0.47390 | 0.00660 | 0.52728 | 2531.0 | 13.0 | 2500.0 | 29.0 | 2547 | 21 | 2547.0 | 21.0 | 1.8 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP34_5 | 380 | 1.80 | 1.18100 | 0.01900 | 0.12990 | 0.00210 | 0.67667 | 791.0 | 8.8 | 787.0 | 12.0 | 812 | 27 | 787.0 | 12.0 | 0.5 | Single Age |
| 15HP34_6 | 220 | 2.49 | 9.95000 | 0.22000 | 0.45760 | 0.00950 | 0.68581 | 2429.0 | 21.0 | 2429.0 | 42.0 | 2450 | 26 | 2450.0 | 26.0 | 0.9 | Single Age |
| 15HP34_7 | 157.7 | 1.80 | 1.40200 | 0.02700 | 0.14610 | 0.00250 | 0.37513 | 889.0 | 11.0 | 879.0 | 14.0 | 926 | 38 | 926.0 | 38.0 | 5.1 | Single Age |
| 15HP34_8 | 446 | 1.39 | 0.72000 | 0.01700 | 0.08910 | 0.00220 | 0.66185 | 550.0 | 10.0 | 550.0 | 13.0 | 549 | 41 | 550.0 | 13.0 | 0.0 | Single Age |
| 15HP34_9 | 62.4 | 1.54 | 2.96900 | 0.08700 | 0.23570 | 0.00570 | 0.37861 | 1402.0 | 21.0 | 1363.0 | 30.0 | 1449 | 56 | 1449.0 | 56.0 | 5.9 | Single Age |
| 15HP34_10 | 267 | 0.93 | 9.95000 | 0.65000 | 0.46800 | 0.03400 | 0.80941 | 2432.0 | 59.0 | 2490.0 | 140.0 | 2337 | 71 | 2337.0 | 71.0 | 6.5 | Single Age |
| 15HP34_12 | 321 | 1.97 | 1.09800 | 0.02100 | 0.12250 | 0.00240 | 0.57664 | 754.3 | 9.6 | 745.0 | 14.0 | 793 | 42 | 745.0 | 14.0 | 1.2 | Single Age |
| 15HP34_13 | 3610 | 189.00 | 0.03820 | 0.00400 | 0.00530 | 0.00044 | 0.76455 | 38.0 | 4.0 | 34.1 | 2.8 | 290 | 140 | DISC | DISC | 10.3 | Single Age |
| 15HP34_14 | 255 | 2.26 | 1.48000 | 0.03800 | 0.14710 | 0.00230 | 0.52695 | 921.0 | 16.0 | 884.0 | 13.0 | 1023 | 43 | 1023.0 | 43.0 | 13.6 | Single Age |
| 15HP34_15 | 779 | 30.00 | 5.04300 | 0.06100 | 0.32760 | 0.00460 | 0.78954 | 1827.0 | 10.0 | 1829.0 | 22.0 | 1825 | 16 | 1825.0 | 16.0 | 0.2 | Single Age |
| 15HP34_16 | 13.92 | 0.80 | 1.22700 | 0.08300 | 0.12330 | 0.00610 | 0.03920 | 808.0 | 37.0 | 748.0 | 35.0 | 960 | 180 | 748.0 | 35.0 | 7.4 | Single Age |
| 15HP34_17 | 120 | 1.15 | 5.19000 | 0.11000 | 0.33220 | 0.00790 | 0.63994 | 1851.0 | 19.0 | 1847.0 | 38.0 | 1852 | 36 | 1852.0 | 36.0 | 0.3 | Single Age |
| 15HP34_18 | 402 | 8.71 | 26.82000 | 0.42000 | 0.69230 | 0.00900 | 0.66195 | 3378.0 | 15.0 | 3390.0 | 34.0 | 3368 | 17 | 3368.0 | 17.0 | 0.7 | Single Age |
| 15HP34_19 | 662 | 1.67 | 4.96100 | 0.07800 | 0.31710 | 0.00640 | 0.73067 | 1812.0 | 14.0 | 1775.0 | 32.0 | 1857 | 22 | 1857.0 | 22.0 | 4.4 | Single Age |
| 15HP34_20 | 479 | 5.39 | 1.56500 | 0.01900 | 0.15900 | 0.00160 | 0.35904 | 957.0 | 7.9 | 951.2 | 8.8 | 961 | 26 | 961.0 | 26.0 | 1.0 | Single Age |
| 15HP34_21 | 131.3 | 0.99 | 1.97100 | 0.03600 | 0.18980 | 0.00310 | 0.39377 | 1108.0 | 12.0 | 1122.0 | 17.0 | 1083 | 41 | 1083.0 | 41.0 | 3.6 | Single Age |
| 15HP34_22 | 197.4 | 0.65 | 5.95500 | 0.07100 | 0.35750 | 0.00380 | 0.54258 | 1970.0 | 10.0 | 1970.0 | 18.0 | 1970 | 18 | 1970.0 | 18.0 | 0.0 | Single Age |
| 15HP34_23 | 455 | 7.90 | 1.47000 | 0.05700 | 0.15360 | 0.00390 | 0.82055 | 917.0 | 24.0 | 921.0 | 22.0 | 916 | 59 | 916.0 | 59.0 | 0.5 | Rim |
| 15HP34_23 | 30 | 0.84 | 2.91000 | 0.18000 | 0.23300 | 0.01300 | 0.22317 | 1378.0 | 48.0 | 1348.0 | 68.0 | 1420 | 140 | 1420.0 | 140.0 | 5.1 | Core |
| 15HP34_24 | 904 | 6.10 | 1.45800 | 0.01600 | 0.15120 | 0.00140 | 0.61312 | 912.6 | 6.8 | 907.8 | 7.8 | 934 | 19 | 934.0 | 19.0 | 2.8 | Single Age |
| 15HP34_25 | 439 | 4.13 | 2.14600 | 0.03800 | 0.19550 | 0.00300 | 0.52508 | 1165.0 | 12.0 | 1151.0 | 16.0 | 1193 | 31 | 1193.0 | 31.0 | 3.5 | Single Age |
| 15HP34_26 | 459 | 2.20 | 1.95800 | 0.02100 | 0.18660 | 0.00180 | 0.48967 | 1100.8 | 7.1 | 1102.9 | 9.8 | 1088 | 21 | 1088.0 | 21.0 | 1.4 | Single Age |
| 15HP34_27 | 261 | 1.62 | 1.36400 | 0.03100 | 0.14320 | 0.00190 | 0.26845 | 873.0 | 14.0 | 863.0 | 11.0 | 900 | 52 | 900.0 | 52.0 | 4.1 | Single Age |
| 15HP34_28 | 322 | 3.77 | 2.63100 | 0.04500 | 0.23350 | 0.00360 | 0.49056 | 1308.0 | 12.0 | 1352.0 | 19.0 | 1258 | 34 | 1258.0 | 34.0 | 7.5 | Single Age |
| 15HP34_29 | 759 | 2.41 | 1.35300 | 0.01900 | 0.14360 | 0.00140 | 0.64679 | 868.2 | 8.0 | 864.8 | 7.9 | 873 | 21 | 873.0 | 21.0 | 0.9 | Single Age |
| 15HP34_30 | 137.8 | 0.52 | 1.03800 | 0.02800 | 0.11680 | 0.00200 | 0.24732 | 726.0 | 14.0 | 712.0 | 11.0 | 760 | 60 | 712.0 | 11.0 | 1.9 | Single Age |
| 15HP34_31 | 63.8 | 3.75 | 0.89000 | 0.02700 | 0.10590 | 0.00210 | 0.17642 | 646.0 | 15.0 | 648.0 | 12.0 | 577 | 77 | 648.0 | 12.0 | 0.3 | Single Age |
| 15HP34_32 | 510 | 6.90 | 0.82200 | 0.03500 | 0.09430 | 0.00410 | 0.81051 | 608.0 | 20.0 | 581.0 | 24.0 | 720 | 50 | 581.0 | 24.0 | 4.4 | Single Age |
| 15HP34_33 | 173 | 0.62 | 10.28000 | 0.26000 | 0.46100 | 0.01200 | 0.71764 | 2460.0 | 22.0 | 2450.0 | 56.0 | 2475 | 35 | 2475.0 | 35.0 | 1.0 | Single Age |
| 15HP34_34 | 246 | 2.94 | 1.19100 | 0.05800 | 0.13180 | 0.00580 | 0.46587 | 794.0 | 27.0 | 798.0 | 33.0 | 785 | 88 | 798.0 | 33.0 | 0.5 | Single Age |
| 15HP34_35 | 21.2 | 0.57 | 1.46900 | 0.08100 | 0.14130 | 0.00400 | 0.10340 | 920.0 | 34.0 | 852.0 | 23.0 | 1020 | 130 | 1020.0 | 130.0 | 16.5 | Single Age |
| 15HP34_36 | 202 | 1.13 | 9.68000 | 0.58000 | 0.43700 | 0.02200 | 0.85783 | 2408.0 | 51.0 | 2333.0 | 99.0 | 2454 | 38 | 2454.0 | 38.0 | 4.9 | Single Age |
| 15HP34_37 | 428 | 3.23 | 0.88500 | 0.01600 | 0.10610 | 0.00170 | 0.60078 | 643.2 | 8.7 | 650.1 | 9.8 | 599 | 31 | 650.1 | 9.8 | 1.1 | Single Age |
| 15HP34_38 | 108 | 1.07 | 2.94300 | 0.05800 | 0.23590 | 0.00400 | 0.49810 | 1395.0 | 15.0 | 1365.0 | 21.0 | 1446 | 36 | 1446.0 | 36.0 | 5.6 | Single Age |
| 15HP34_39 | 104 | 1.35 | 1.03000 | 0.04700 | 0.11460 | 0.00480 | 0.65138 | 716.0 | 23.0 | 699.0 | 28.0 | 818 | 73 | 699.0 | 28.0 | 2.4 | Single Age |
| 15HP34_40 | 37.4 | 0.59 | 0.96900 | 0.05100 | 0.10300 | 0.00440 | 0.45513 | 686.0 | 26.0 | 631.0 | 26.0 | 860 | 120 | 631.0 | 26.0 | 8.0 | Single Age |
| 15HP34_41 | 63.5 | 2.75 | 1.34300 | 0.04900 | 0.14310 | 0.00310 | 0.35209 | 860.0 | 21.0 | 862.0 | 18.0 | 862 | 71 | 862.0 | 71.0 | 0.0 | Single Age |
| 15HP34_42 | 80.8 | 0.36 | 0.80500 | 0.03600 | 0.07970 | 0.00220 | 0.41941 | 601.0 | 21.0 | 494.0 | 13.0 | 1018 | 92 | DISC | DISC | 17.8 | Single Age |
| 15HP34_43 | 184 | 8.22 | 1.69500 | 0.09800 | 0.17100 | 0.01100 | 0.88220 | 1000.0 | 38.0 | 1014.0 | 62.0 | 967 | 61 | 967.0 | 61.0 | 4.9 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP34_44 | 140.3 | 0.29 | 0.65400 | 0.04600 | 0.04090 | 0.00310 | 0.02122 | 509.0 | 28.0 | 258.0 | 19.0 | 1940 | 200 | DISC | DISC | 49.3 | Single Age |
| 15HP34_46 | 131.8 | 0.22 | 0.18700 | 0.02000 | 0.01600 | 0.00140 | 0.83640 | 178.0 | 17.0 | 102.5 | 8.8 | 1300 | 140 | DISC | DISC | 42.4 | Single Age |
| 15HP34_47 | 41.5 | 0.60 | 11.60000 | 0.69000 | 0.49700 | 0.03600 | 0.68343 | 2565.0 | 57.0 | 2590.0 | 150.0 | 2514 | 91 | 2514.0 | 91.0 | 3.0 | Single Age |
| 15HP34_49 | 38.8 | 2.95 | 0.10500 | 0.01600 | 0.01350 | 0.00130 | 0.39319 | 99.0 | 15.0 | 86.2 | 8.4 | 330 | 300 | DISC | DISC | 12.9 | Single Age |
| 15HP34_50 | 12.5 | 0.49 | 0.71600 | 0.09900 | 0.03990 | 0.00410 | 0.41610 | 553.0 | 61.0 | 251.0 | 25.0 | 2150 | 270 | DISC | DISC | 54.6 | Single Age |
| 15HP34_51 | 67 | 0.69 | 1.05900 | 0.06300 | 0.09510 | 0.00470 | 0.46072 | 728.0 | 31.0 | 584.0 | 27.0 | 1240 | 93 | DISC | DISC | 19.8 | Single Age |
| 15HP34_52 | 113 | 0.79 | 7.83000 | 0.59000 | 0.33900 | 0.02000 | 0.84996 | 2203.0 | 68.0 | 1881.0 | 95.0 | 2504 | 60 | 2504.0 | 60.0 | 24.9 | Single Age |
| 15HP34_53 | 86 | 0.24 | 2.70000 | 0.32000 | 0.13900 | 0.01600 | 0.88841 | 1330.0 | 81.0 | 835.0 | 88.0 | 2209 | 95 | DISC | DISC | 37.2 | Single Age |
| 15HP34_54 | 160 | 3.48 | 10.09000 | 0.61000 | 0.45900 | 0.02000 | 0.84794 | 2437.0 | 56.0 | 2433.0 | 91.0 | 2482 | 65 | 2482.0 | 65.0 | 2.0 | Single Age |
| 15HP34_55 | 168 | 1.13 | 1.65000 | 0.11000 | 0.15600 | 0.01300 | 0.36121 | 999.0 | 45.0 | 932.0 | 71.0 | 1210 | 140 | 1210.0 | 140.0 | 23.0 | Single Age |
| 15HP34_56 | 100 | 0.67 | 2.56000 | 0.37000 | 0.21700 | 0.03100 | 0.96267 | 1250.0 | 120.0 | 1250.0 | 160.0 | 1361 | 83 | 1361.0 | 83.0 | 8.2 | Single Age |
| 15HP34_57 | 116.5 | 0.12 | 0.83700 | 0.04900 | 0.05800 | 0.00250 | 0.41642 | 618.0 | 26.0 | 363.0 | 15.0 | 1689 | 99 | DISC | DISC | 41.3 | Single Age |
| 15HP34_58 | 134 | 0.46 | 1.10000 | 0.06000 | 0.09900 | 0.00510 | 0.77845 | 749.0 | 30.0 | 608.0 | 30.0 | 1222 | 65 | DISC | DISC | 18.8 | Single Age |
| 15HP34_59 | 215 | 11.50 | 2.72000 | 0.12000 | 0.22600 | 0.01400 | 0.81938 | 1330.0 | 34.0 | 1311.0 | 71.0 | 1346 | 64 | 1346.0 | 64.0 | 2.6 | Single Age |
| 15HP34_60 | 241 | 0.26 | 1.47800 | 0.07900 | 0.14580 | 0.00950 | 0.77833 | 925.0 | 35.0 | 886.0 | 51.0 | 1030 | 66 | 1030.0 | 66.0 | 14.0 | Single Age |
| 15HP34_61 | 112.7 | 0.70 | 1.44200 | 0.05900 | 0.14690 | 0.00480 | 0.46768 | 905.0 | 25.0 | 883.0 | 27.0 | 968 | 72 | 968.0 | 72.0 | 8.8 | Single Age |
| 15HP34_62 | 170 | 1.12 | 6.31000 | 0.23000 | 0.27800 | 0.01400 | 0.89520 | 2018.0 | 33.0 | 1599.0 | 60.0 | 2465 | 38 | DISC | DISC | 35.1 | Single Age |
| 15HP34_63 | 313 | 1.41 | 1.59600 | 0.06200 | 0.16230 | 0.00720 | 0.83187 | 965.0 | 25.0 | 968.0 | 40.0 | 948 | 44 | 948.0 | 44.0 | 2.1 | Single Age |
| 15HP34_64 | 600 | 7.00 | 0.97600 | 0.01700 | 0.11360 | 0.00180 | 0.64457 | 692.2 | 8.7 | 693.0 | 10.0 | 691 | 31 | 693.0 | 10.0 | 0.1 | Single Age |
| 15HP34_65 | 351 | 3.55 | 1.60700 | 0.06000 | 0.14960 | 0.00860 | 0.62707 | 972.0 | 23.0 | 898.0 | 48.0 | 1224 | 84 | 1224.0 | 84.0 | 26.6 | Single Age |
| 15HP34_66 | 394 | 5.02 | 0.61800 | 0.02200 | 0.07790 | 0.00210 | 0.73187 | 487.0 | 14.0 | 483.0 | 13.0 | 546 | 46 | 483.0 | 13.0 | 0.8 | Single Age |
| 15HP34_67 | 149 | 2.39 | 5.75000 | 0.24000 | 0.35100 | 0.01600 | 0.83274 | 1941.0 | 37.0 | 1937.0 | 78.0 | 1968 | 45 | 1968.0 | 45.0 | 1.6 | Single Age |
| 15HP34_68 | 107.2 | 1.13 | 10.67000 | 0.16000 | 0.46630 | 0.00990 | 0.62784 | 2495.0 | 14.0 | 2470.0 | 44.0 | 2511 | 26 | 2511.0 | 26.0 | 1.6 | Single Age |
| 15HP34_69 | 121 | 0.76 | 1.05700 | 0.03100 | 0.11820 | 0.00210 | 0.32902 | 732.0 | 16.0 | 720.0 | 12.0 | 809 | 60 | 720.0 | 12.0 | 1.6 | Single Age |
| 15HP34_70 | 273 | 6.70 | 1.51000 | 0.16000 | 0.15800 | 0.01700 | 0.95644 | 931.0 | 66.0 | 937.0 | 91.0 | 973 | 64 | 973.0 | 64.0 | 3.7 | Single Age |
| 15HP34_71 | 298 | 4.79 | 1.61900 | 0.06100 | 0.16370 | 0.00620 | 0.80870 | 979.0 | 23.0 | 976.0 | 34.0 | 984 | 52 | 984.0 | 52.0 | 0.8 | Single Age |
| 15HP34_72 | 44.9 | 1.70 | 2.00000 | 0.12000 | 0.17430 | 0.00770 | 0.55063 | 1113.0 | 39.0 | 1041.0 | 41.0 | 1190 | 100 | 1190.0 | 100.0 | 12.5 | Single Age |
| 15HP34_73 | 85.3 | 1.30 | 30.65000 | 0.94000 | 0.71500 | 0.02200 | 0.75329 | 3504.0 | 30.0 | 3473.0 | 81.0 | 3526 | 36 | 3526.0 | 36.0 | 1.5 | Single Age |
| 15HP34_74 | 157 | 1.19 | 1.12300 | 0.08300 | 0.12580 | 0.00680 | 0.69830 | 761.0 | 41.0 | 763.0 | 39.0 | 860 | 120 | 763.0 | 39.0 | 0.3 | Single Age |
| 15HP34_75 | 144 | 1.68 | 0.99100 | 0.07400 | 0.11260 | 0.00790 | 0.93120 | 702.0 | 38.0 | 685.0 | 45.0 | 736 | 61 | 685.0 | 45.0 | 2.4 | Single Age |
| 15HP34_76 | 107.3 | 1.30 | 2.48600 | 0.06900 | 0.20100 | 0.00470 | 0.60102 | 1268.0 | 21.0 | 1180.0 | 25.0 | 1442 | 44 | 1442.0 | 44.0 | 18.2 | Single Age |
| 15HP34_77 | 45.1 | 0.37 | 0.59200 | 0.04600 | 0.04930 | 0.00330 | 0.54972 | 468.0 | 29.0 | 310.0 | 20.0 | 1280 | 130 | DISC | DISC | 33.8 | Single Age |
| 15HP34_78 | 29.5 | 0.14 | 0.68900 | 0.06300 | 0.04600 | 0.00430 | 0.70749 | 519.0 | 37.0 | 289.0 | 26.0 | 1810 | 140 | DISC | DISC | 44.3 | Single Age |
| 15HP34_79 | 118 | 0.15 | 0.38100 | 0.02000 | 0.03920 | 0.00210 | 0.46179 | 326.0 | 15.0 | 248.0 | 13.0 | 900 | 110 | DISC | DISC | 23.9 | Single Age |
| 15HP34_80 | 157 | 6.30 | 7.38000 | 0.75000 | 0.40000 | 0.04100 | 0.95573 | 2129.0 | 95.0 | 2150.0 | 190.0 | 2171 | 49 | 2171.0 | 49.0 | 1.0 | Single Age |
| 15HP34_81 | 135 | 4.36 | 2.55000 | 0.37000 | 0.21100 | 0.02800 | 0.97612 | 1210.0 | 100.0 | 1210.0 | 150.0 | 1335 | 80 | 1335.0 | 80.0 | 9.4 | Single Age |
| 15HP34_82 | 62.2 | 0.99 | 1.39000 | 0.10000 | 0.13500 | 0.00770 | 0.63902 | 882.0 | 45.0 | 816.0 | 44.0 | 1050 | 170 | 816.0 | 44.0 | 7.5 | Single Age |
| 15HP34_83 | 40.4 | 1.08 | 4.08000 | 0.28000 | 0.21000 | 0.01500 | 0.63950 | 1655.0 | 53.0 | 1228.0 | 83.0 | 2220 | 100 | DISC | DISC | 44.7 | Single Age |
| 15HP34_84 | 191 | 2.44 | 0.89600 | 0.05900 | 0.10570 | 0.00750 | 0.65584 | 648.0 | 31.0 | 647.0 | 44.0 | 650 | 100 | 647.0 | 44.0 | 0.2 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP34_85 | 124 | 8.50 | 7.78000 | 0.65000 | 0.35700 | 0.02800 | 0.97824 | 2161.0 | 65.0 | 1950.0 | 120.0 | 2414 | 25 | 2414.0 | 25.0 | 19.2 | Single Age |
| 15HP34_86 | 387 | 0.70 | 1.34200 | 0.09700 | 0.11320 | 0.00910 | 0.69216 | 860.0 | 42.0 | 690.0 | 53.0 | 1340 | 120 | DISC | DISC | 19.8 | Single Age |
| 15HP34_87 | 21.7 | 0.52 | 0.63500 | 0.08100 | 0.07890 | 0.00730 | 0.30396 | 492.0 | 51.0 | 488.0 | 44.0 | 480 | 270 | 488.0 | 44.0 | 0.8 | Single Age |
| 15HP34_88 | 385 | 3.25 | 0.86500 | 0.04700 | 0.10240 | 0.00480 | 0.83416 | 630.0 | 26.0 | 628.0 | 28.0 | 629 | 68 | 628.0 | 28.0 | 0.3 | Single Age |
| 15HP34_89 | 88 | 2.59 | 1.81800 | 0.09400 | 0.17800 | 0.01100 | 0.74990 | 1050.0 | 36.0 | 1054.0 | 58.0 | 987 | 89 | 987.0 | 89.0 | 6.8 | Single Age |
| 15HP34_90 | 366 | 7.83 | 1.31600 | 0.03800 | 0.13890 | 0.00410 | 0.43263 | 852.0 | 16.0 | 838.0 | 23.0 | 913 | 73 | 838.0 | 23.0 | 1.6 | Single Age |
| 15HP34_91 | 56.6 | 2.01 | 1.67700 | 0.08500 | 0.16850 | 0.00550 | 0.05420 | 991.0 | 31.0 | 1003.0 | 30.0 | 949 | 85 | 949.0 | 85.0 | 5.7 | Single Age |
| 15HP34_92 | 81.1 | 6.33 | 1.12300 | 0.04300 | 0.12580 | 0.00350 | 0.31964 | 761.0 | 21.0 | 764.0 | 20.0 | 762 | 82 | 764.0 | 20.0 | 0.4 | Single Age |
| 15HP34_93 | 211 | 13.00 | 0.89600 | 0.03500 | 0.10370 | 0.00330 | 0.55273 | 648.0 | 19.0 | 635.0 | 19.0 | 672 | 76 | 635.0 | 19.0 | 2.0 | Single Age |
| 15HP34_94 | 250 | 1.65 | 10.70000 | 0.27000 | 0.47200 | 0.01100 | 0.81815 | 2497.0 | 24.0 | 2499.0 | 50.0 | 2490 | 25 | 2490.0 | 25.0 | 0.4 | Single Age |
| 15HP34_95 | 149.6 | 14.11 | 0.77300 | 0.04200 | 0.07840 | 0.00230 | 0.63137 | 578.0 | 24.0 | 486.0 | 14.0 | 965 | 89 | DISC | DISC | 15.9 | Single Age |
| 15HP34_96 | 164 | 2.47 | 10.95000 | 0.14000 | 0.47950 | 0.00650 | 0.66769 | 2518.0 | 12.0 | 2524.0 | 28.0 | 2511 | 18 | 2511.0 | 18.0 | 0.5 | Single Age |
| 15HP34_97 | 554 | 22.70 | 1.74000 | 0.05100 | 0.13960 | 0.00370 | 0.60355 | 1022.0 | 19.0 | 842.0 | 21.0 | 1408 | 51 | DISC | DISC | 17.6 | Single Age |
| 15HP34_98 | 119 | 2.89 | 0.84900 | 0.04300 | 0.09190 | 0.00500 | 0.58640 | 622.0 | 24.0 | 566.0 | 30.0 | 800 | 110 | 566.0 | 30.0 | 9.0 | Single Age |
| 15HP34_99 | 127.8 | 1.59 | 9.44000 | 0.16000 | 0.42650 | 0.00780 | 0.61138 | 2380.0 | 15.0 | 2289.0 | 35.0 | 2457 | 24 | 2457.0 | 24.0 | 6.8 | Single Age |
| 15HP34_100 | 613 | 3.38 | 1.92200 | 0.02400 | 0.18150 | 0.00210 | 0.53971 | 1088.0 | 8.5 | 1075.0 | 11.0 | 1115 | 20 | 1115.0 | 20.0 | 3.6 | Single Age |
| 15HP34_101 | 282 | 1.54 | 1.73300 | 0.04900 | 0.16260 | 0.00350 | 0.65237 | 1019.0 | 18.0 | 971.0 | 19.0 | 1147 | 41 | 1147.0 | 41.0 | 15.3 | Single Age |
| 15HP34_102 | 566 | 2.41 | 1.37800 | 0.01400 | 0.14250 | 0.00130 | 0.36575 | 880.1 | 6.0 | 858.7 | 7.1 | 934 | 22 | 934.0 | 22.0 | 8.1 | Single Age |
| 15HP34_103 | 118.1 | 1.14 | 0.84200 | 0.03100 | 0.08380 | 0.00220 | 0.31643 | 619.0 | 17.0 | 519.0 | 13.0 | 973 | 84 | DISC | DISC | 16.2 | Single Age |
| 15HP34_104 | 657 | 7.80 | 1.26200 | 0.03700 | 0.13570 | 0.00440 | 0.04021 | 828.0 | 17.0 | 820.0 | 25.0 | 824 | 73 | 820.0 | 25.0 | 1.0 | Rim |
| 15HP34_104 | 98.4 | 1.80 | 12.33000 | 0.47000 | 0.48400 | 0.01700 | 0.81966 | 2628.0 | 37.0 | 2545.0 | 74.0 | 2694 | 44 | 2694.0 | 44.0 | 5.5 | Core |
| 15HP34_105 | 144 | 1.22 | 9.78000 | 0.21000 | 0.44700 | 0.01300 | 0.73797 | 2411.0 | 20.0 | 2388.0 | 60.0 | 2461 | 33 | 2461.0 | 33.0 | 3.0 | Single Age |
| 15HP34_106 | 370 | 1.23 | 1.64300 | 0.03000 | 0.16760 | 0.00270 | 0.54290 | 985.0 | 12.0 | 998.0 | 15.0 | 933 | 34 | 933.0 | 34.0 | 7.0 | Single Age |
| 15HP34_107 | 59.8 | 1.24 | 0.15900 | 0.01500 | 0.02100 | 0.00110 | 0.06907 | 151.0 | 13.0 | 133.7 | 7.1 | 350 | 200 | DISC | DISC | 11.5 | Single Age |
| 15HP34_108 | 117.9 | 1.25 | 23.20000 | 0.39000 | 0.59700 | 0.01000 | 0.67336 | 3234.0 | 17.0 | 3021.0 | 40.0 | 3378 | 21 | 3378.0 | 21.0 | 10.6 | Single Age |
| 15HP34_109 | 540 | 16.40 | 0.77000 | 0.02000 | 0.09460 | 0.00210 | 0.65415 | 582.0 | 11.0 | 583.0 | 13.0 | 561 | 46 | 583.0 | 13.0 | 0.2 | Single Age |
| 15HP34_110 | 168.4 | 1.83 | 1.31700 | 0.02600 | 0.13850 | 0.00270 | 0.50548 | 852.0 | 11.0 | 836.0 | 15.0 | 922 | 42 | 836.0 | 15.0 | 1.9 | Single Age |
| 15HP34_111 | 342 | 0.59 | 0.77200 | 0.01900 | 0.09100 | 0.00220 | 0.56022 | 581.0 | 11.0 | 561.0 | 13.0 | 676 | 52 | 561.0 | 13.0 | 3.4 | Single Age |
| 15HP34_112 | 1071 | 23.77 | 1.49700 | 0.02400 | 0.15430 | 0.00310 | 0.69743 | 928.1 | 9.9 | 925.0 | 17.0 | 955 | 31 | 955.0 | 31.0 | 3.1 | Single Age |
| 15HP34_113 | 181 | 1.46 | 2.11500 | 0.03600 | 0.19550 | 0.00270 | 0.49781 | 1154.0 | 12.0 | 1151.0 | 15.0 | 1139 | 32 | 1139.0 | 32.0 | 1.1 | Single Age |
| 15HP34_114 | 192.3 | 2.36 | 1.38900 | 0.02800 | 0.14540 | 0.00340 | 0.47273 | 885.0 | 11.0 | 875.0 | 19.0 | 920 | 52 | 920.0 | 52.0 | 4.9 | Single Age |
| 15HP34_115 | 138 | 1.56 | 1.96100 | 0.05900 | 0.18400 | 0.00480 | 0.25543 | 1100.0 | 20.0 | 1089.0 | 26.0 | 1080 | 71 | 1080.0 | 71.0 | 0.8 | Single Age |
| 15HP34_116 | 216 | 0.25 | 1.33700 | 0.02600 | 0.13580 | 0.00270 | 0.39090 | 861.0 | 12.0 | 820.0 | 15.0 | 965 | 40 | 820.0 | 15.0 | 4.8 | Single Age |
| 15HP34_117 | 73.8 | 2.19 | 11.33000 | 0.33000 | 0.44800 | 0.01200 | 0.68538 | 2553.0 | 28.0 | 2383.0 | 54.0 | 2682 | 38 | 2682.0 | 38.0 | 11.1 | Single Age |
| 15HP34_118 | 193 | 0.80 | 2.67200 | 0.04900 | 0.21230 | 0.00390 | 0.56492 | 1319.0 | 13.0 | 1241.0 | 21.0 | 1435 | 30 | 1435.0 | 30.0 | 13.5 | Single Age |
| 15HP34_119 | 48.4 | 0.63 | 0.58900 | 0.02900 | 0.07590 | 0.00200 | 0.18464 | 467.0 | 19.0 | 471.0 | 12.0 | 460 | 110 | 471.0 | 12.0 | 0.9 | Single Age |
| 15HP34_120 | 173 | 1.08 | 0.71800 | 0.01800 | 0.08760 | 0.00170 | 0.14920 | 550.0 | 11.0 | 541.0 | 10.0 | 582 | 60 | 541.0 | 10.0 | 1.6 | Single Age |
| 15HP35_1 | 463 | 4.05 | 1.67700 | 0.02100 | 0.16890 | 0.00180 | 0.55019 | 1000.4 | 7.9 | 1005.7 | 9.9 | 1000 | 24 | 1000.0 | 24.0 | 0.6 | Single Age |
| 15HP35_2 | 302 | 2.63 | 1.75100 | 0.03400 | 0.17250 | 0.00260 | 0.51095 | 1027.0 | 12.0 | 1026.0 | 14.0 | 1043 | 33 | 1043.0 | 33.0 | 1.6 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP35_3 | 40.9 | 1.23 | 0.15900 | 0.02000 | 0.02130 | 0.00150 | 0.24127 | 148.0 | 17.0 | 135.6 | 9.5 | 310 | 260 | 135.6 | 9.5 | 8.4 | Single Age |
| 15HP35_4 | 170 | 0.84 | 12.53000 | 0.29000 | 0.51200 | 0.01300 | 0.83538 | 2644.0 | 21.0 | 2661.0 | 55.0 | 2644 | 22 | 2644.0 | 22.0 | 0.6 | Single Age |
| 15HP35_5 | 1814 | 4.76 | 1.20000 | 0.01200 | 0.13250 | 0.00130 | 0.65410 | 800.2 | 5.3 | 802.1 | 7.3 | 803 | 17 | 802.1 | 7.3 | 0.2 | Single Age |
| 15HP35_6 | 61.1 | 0.45 | 0.68900 | 0.03900 | 0.08180 | 0.00340 | 0.04510 | 529.0 | 23.0 | 506.0 | 20.0 | 590 | 130 | 506.0 | 20.0 | 4.3 | Single Age |
| 15HP35_7 | 497 | 2.84 | 0.89800 | 0.01500 | 0.10870 | 0.00160 | 0.50504 | 650.0 | 8.0 | 666.2 | 9.0 | 593 | 35 | 666.2 | 9.0 | 2.5 | Single Age |
| 15HP35_8 | 210 | 1.42 | 1.36100 | 0.02500 | 0.14780 | 0.00220 | 0.57558 | 871.0 | 11.0 | 889.0 | 13.0 | 863 | 32 | 863.0 | 32.0 | 3.0 | Single Age |
| 15HP35_9 | 143.8 | 1.05 | 10.75000 | 0.17000 | 0.47810 | 0.00760 | 0.68839 | 2501.0 | 15.0 | 2518.0 | 33.0 | 2478 | 21 | 2478.0 | 21.0 | 1.6 | Single Age |
| 15HP35_10 | 252.4 | 2.73 | 1.20900 | 0.02500 | 0.13240 | 0.00270 | 0.54284 | 806.0 | 12.0 | 801.0 | 15.0 | 812 | 40 | 801.0 | 15.0 | 0.6 | Single Age |
| 15HP35_11 | 700 | 3.06 | 1.89600 | 0.03700 | 0.18170 | 0.00380 | 0.78412 | 1078.0 | 13.0 | 1076.0 | 21.0 | 1094 | 24 | 1094.0 | 24.0 | 1.6 | Single Age |
| 15HP35_12 | 104.3 | 0.65 | 4.39000 | 0.14000 | 0.28750 | 0.00830 | 0.63532 | 1709.0 | 26.0 | 1628.0 | 42.0 | 1809 | 45 | 1809.0 | 45.0 | 10.0 | Single Age |
| 15HP35_13 | 302 | 1.72 | 7.26000 | 0.14000 | 0.36690 | 0.00590 | 0.82436 | 2142.0 | 17.0 | 2014.0 | 28.0 | 2289 | 18 | 2289.0 | 18.0 | 12.0 | Single Age |
| 15HP35_14 | 211 | 0.48 | 1.30100 | 0.04700 | 0.13980 | 0.00630 | 0.33114 | 845.0 | 21.0 | 843.0 | 36.0 | 836 | 94 | 843.0 | 36.0 | 0.2 | Single Age |
| 15HP35_15 | 213 | 1.36 | 1.60700 | 0.02300 | 0.16360 | 0.00240 | 0.41154 | 972.3 | 9.0 | 977.0 | 13.0 | 978 | 32 | 978.0 | 32.0 | 0.1 | Single Age |
| 15HP35_16 | 61.9 | 1.60 | 1.68000 | 0.04700 | 0.16940 | 0.00330 | 0.07904 | 999.0 | 18.0 | 1008.0 | 18.0 | 1017 | 69 | 1017.0 | 69.0 | 0.9 | Single Age |
| 15HP35_17 | 163 | 0.39 | 0.70000 | 0.04100 | 0.08530 | 0.00190 | 0.20506 | 527.0 | 13.0 | 527.0 | 11.0 | 518 | 69 | 527.0 | 11.0 | 0.0 | Single Age |
| 15HP35_18 | 336 | 1.30 | 0.71400 | 0.01200 | 0.08880 | 0.00100 | 0.36828 | 546.8 | 7.0 | 548.7 | 6.1 | 562 | 37 | 548.7 | 6.1 | 0.3 | Single Age |
| 15HP35_19 | 126.1 | 1.87 | 1.65500 | 0.03200 | 0.16820 | 0.00250 | 0.44093 | 992.0 | 12.0 | 1002.0 | 14.0 | 988 | 36 | 988.0 | 36.0 | 1.4 | Single Age |
| 15HP35_20 | 251 | 27.20 | 10.97000 | 0.17000 | 0.50500 | 0.00690 | 0.63074 | 2523.0 | 16.0 | 2641.0 | 28.0 | 2437 | 24 | 2437.0 | 24.0 | 8.4 | Single Age |
| 15HP35_21 | 454 | 3.78 | 1.14800 | 0.01900 | 0.12800 | 0.00160 | 0.08749 | 775.7 | 9.0 | 776.1 | 9.1 | 776 | 39 | 776.1 | 9.1 | 0.1 | Single Age |
| 15HP35_22 | 61.2 | 0.69 | 2.19800 | 0.05800 | 0.19810 | 0.00280 | 0.36045 | 1182.0 | 19.0 | 1165.0 | 15.0 | 1240 | 49 | 1240.0 | 49.0 | 6.0 | Single Age |
| 15HP35_23 | 254 | 0.97 | 10.51000 | 0.11000 | 0.47090 | 0.00580 | 0.73306 | 2480.0 | 10.0 | 2486.0 | 25.0 | 2475 | 14 | 2475.0 | 14.0 | 0.4 | Single Age |
| 15HP35_24 | 74.3 | 1.78 | 3.44000 | 0.05200 | 0.26590 | 0.00410 | 0.36850 | 1515.0 | 12.0 | 1519.0 | 21.0 | 1516 | 31 | 1516.0 | 31.0 | 0.2 | Single Age |
| 15HP35_25 | 305 | 1.58 | 2.06200 | 0.02500 | 0.19480 | 0.00190 | 0.41547 | 1136.7 | 8.4 | 1147.0 | 10.0 | 1108 | 25 | 1108.0 | 25.0 | 3.5 | Single Age |
| 15HP35_26 | 404 | 0.98 | 1.67300 | 0.01800 | 0.16860 | 0.00180 | 0.34056 | 998.0 | 7.0 | 1004.0 | 9.9 | 993 | 24 | 993.0 | 24.0 | 1.1 | Single Age |
| 15HP35_27 | 79.6 | 6.13 | 1.29700 | 0.04200 | 0.13700 | 0.00220 | 0.33473 | 843.0 | 19.0 | 828.0 | 12.0 | 898 | 66 | 828.0 | 12.0 | 1.8 | Single Age |
| 15HP35_28 | 329 | 2.14 | 1.17800 | 0.02600 | 0.13230 | 0.00240 | 0.65865 | 792.0 | 12.0 | 801.0 | 14.0 | 795 | 41 | 801.0 | 14.0 | 1.1 | Single Age |
| 15HP35_29 | 258 | 1.03 | 0.82300 | 0.05800 | 0.09440 | 0.00130 | 0.06693 | 588.0 | 18.0 | 581.6 | 7.7 | 577 | 67 | 581.6 | 7.7 | 1.1 | Single Age |
| 15HP35_30 | 18.93 | 0.80 | 1.04200 | 0.06300 | 0.12350 | 0.00410 | 0.10925 | 717.0 | 32.0 | 750.0 | 23.0 | 660 | 150 | 750.0 | 23.0 | 4.6 | Single Age |
| 15HP35_31 | 638 | 2.65 | 1.54600 | 0.01500 | 0.16010 | 0.00160 | 0.48123 | 948.5 | 6.1 | 958.1 | 8.7 | 928 | 21 | 928.0 | 21.0 | 3.2 | Single Age |
| 15HP35_32 | 266 | 1.05 | 1.29200 | 0.02600 | 0.13840 | 0.00230 | 0.31691 | 841.0 | 12.0 | 837.0 | 13.0 | 895 | 44 | 837.0 | 13.0 | 0.5 | Single Age |
| 15HP35_33 | 1067 | 5.47 | 1.30200 | 0.02900 | 0.14110 | 0.00260 | 0.86945 | 846.0 | 13.0 | 851.0 | 15.0 | 847 | 22 | 847.0 | 15.0 | 0.6 | Single Age |
| 15HP35_34 | 506 | 4.74 | 1.05900 | 0.03700 | 0.11870 | 0.00380 | 0.47878 | 733.0 | 18.0 | 723.0 | 22.0 | 855 | 69 | 723.0 | 22.0 | 1.4 | Rim |
| 15HP35_34 | 94.6 | 0.87 | 2.13300 | 0.06700 | 0.19890 | 0.00480 | 0.44620 | 1165.0 | 23.0 | 1169.0 | 26.0 | 1148 | 64 | 1148.0 | 64.0 | 1.8 | Core |
| 15HP35_35 | 69.7 | 1.97 | 0.84900 | 0.03100 | 0.10400 | 0.00230 | 0.03092 | 621.0 | 17.0 | 638.0 | 13.0 | 542 | 89 | 638.0 | 13.0 | 2.7 | Single Age |
| 15HP35_36 | 428.3 | 7.97 | 1.35100 | 0.01900 | 0.14530 | 0.00170 | 0.26940 | 867.3 | 8.1 | 874.4 | 9.3 | 850 | 34 | 850.0 | 34.0 | 0.8 | Single Age |
| 15HP35_37 | 583 | 0.76 | 1.70200 | 0.03800 | 0.16810 | 0.00410 | 0.76449 | 1011.0 | 14.0 | 1002.0 | 22.0 | 1019 | 36 | 1019.0 | 36.0 | 1.7 | Single Age |
| 15HP35_38 | 61.8 | 0.36 | 0.71000 | 0.03400 | 0.08510 | 0.00250 | 0.33961 | 546.0 | 20.0 | 526.0 | 15.0 | 630 | 110 | 526.0 | 15.0 | 3.7 | Single Age |
| 15HP35_39 | 257 | 1.94 | 10.05000 | 0.15000 | 0.45650 | 0.00630 | 0.58764 | 2439.0 | 14.0 | 2424.0 | 28.0 | 2480 | 21 | 2480.0 | 21.0 | 2.3 | Single Age |
| 15HP35_40 | 407 | 3.93 | 0.88000 | 0.01200 | 0.10570 | 0.00130 | 0.36961 | 641.2 | 6.6 | 647.9 | 7.4 | 624 | 34 | 647.9 | 7.4 | 1.0 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP35_41 | 850 | 13.00 | 2.68700 | 0.07700 | 0.23010 | 0.00720 | 0.82105 | 1326.0 | 21.0 | 1334.0 | 38.0 | 1322 | 35 | 1322.0 | 35.0 | 0.9 | Single Age |
| 15HP35_42 | 477 | 3.00 | 4.00300 | 0.04300 | 0.29160 | 0.00340 | 0.57303 | 1635.3 | 8.9 | 1649.0 | 17.0 | 1625 | 19 | 1625.0 | 19.0 | 1.5 | Single Age |
| 15HP35_43 | 222 | 1.25 | 1.59300 | 0.02200 | 0.16490 | 0.00170 | 0.29317 | 967.9 | 8.4 | 983.9 | 9.7 | 946 | 28 | 946.0 | 28.0 | 4.0 | Single Age |
| 15HP35_44 | 413 | 2.93 | 2.94600 | 0.06100 | 0.24050 | 0.00530 | 0.84460 | 1392.0 | 16.0 | 1388.0 | 28.0 | 1418 | 24 | 1418.0 | 24.0 | 2.1 | Single Age |
| 15HP35_45 | 138.7 | 1.01 | 1.66700 | 0.05200 | 0.16550 | 0.00310 | 0.05812 | 987.0 | 15.0 | 987.0 | 17.0 | 994 | 48 | 994.0 | 48.0 | 0.7 | Single Age |
| 15HP35_46 | 235.8 | 0.75 | 1.12200 | 0.02100 | 0.12740 | 0.00180 | 0.41699 | 762.9 | 9.9 | 773.0 | 11.0 | 759 | 36 | 773.0 | 11.0 | 1.3 | Single Age |
| 15HP35_47 | 250 | 1.45 | 1.21000 | 0.02800 | 0.13230 | 0.00330 | 0.68027 | 806.0 | 13.0 | 801.0 | 19.0 | 842 | 42 | 801.0 | 19.0 | 0.6 | Single Age |
| 15HP35_48 | 64.5 | 0.52 | 0.65400 | 0.03400 | 0.08500 | 0.00190 | 0.25894 | 504.0 | 20.0 | 526.0 | 11.0 | 420 | 110 | 526.0 | 11.0 | 4.4 | Single Age |
| 15HP35_49 | 288.3 | 1.23 | 2.06200 | 0.03300 | 0.19300 | 0.00400 | 0.62322 | 1136.0 | 11.0 | 1138.0 | 21.0 | 1125 | 35 | 1125.0 | 35.0 | 1.2 | Single Age |
| 15HP35_50 | 382 | 8.71 | 1.50100 | 0.01800 | 0.15640 | 0.00150 | 0.41060 | 931.1 | 7.5 | 936.7 | 8.4 | 920 | 25 | 920.0 | 25.0 | 1.8 | Single Age |
| 15HP35_51 | 49.4 | 1.10 | 15.24000 | 0.27000 | 0.55800 | 0.01100 | 0.56780 | 2829.0 | 17.0 | 2856.0 | 47.0 | 2813 | 27 | 2813.0 | 27.0 | 1.5 | Single Age |
| 15HP35_52 | 119.1 | 0.43 | 0.61100 | 0.01800 | 0.07950 | 0.00160 | 0.03264 | 486.0 | 12.0 | 493.3 | 9.4 | 439 | 82 | 493.3 | 9.4 | 1.5 | Single Age |
| 15HP35_53 | 312 | 0.65 | 9.39000 | 0.10000 | 0.42720 | 0.00550 | 0.72617 | 2376.0 | 10.0 | 2292.0 | 25.0 | 2444 | 17 | 2444.0 | 17.0 | 6.2 | Single Age |
| 15HP35_54 | 90.3 | 7.17 | 0.82500 | 0.03600 | 0.09750 | 0.00220 | 0.04433 | 610.0 | 19.0 | 600.0 | 13.0 | 644 | 88 | 600.0 | 13.0 | 1.6 | Single Age |
| 15HP35_55 | 95.5 | 0.99 | 0.74800 | 0.04000 | 0.09140 | 0.00240 | 0.03950 | 556.0 | 16.0 | 564.0 | 14.0 | 520 | 90 | 564.0 | 14.0 | 1.4 | Single Age |
| 15HP35_56 | 263 | 1.38 | 1.68200 | 0.03400 | 0.17250 | 0.00220 | 0.16631 | 1000.0 | 13.0 | 1026.0 | 12.0 | 938 | 36 | 938.0 | 36.0 | 9.4 | Single Age |
| 15HP35_57 | 175 | 1.08 | 1.48800 | 0.04500 | 0.15620 | 0.00390 | 0.72037 | 928.0 | 18.0 | 938.0 | 21.0 | 914 | 40 | 914.0 | 40.0 | 2.6 | Single Age |
| 15HP35_58 | 241.3 | 1.09 | 2.92900 | 0.04000 | 0.23830 | 0.00260 | 0.40789 | 1390.0 | 11.0 | 1378.0 | 14.0 | 1413 | 27 | 1413.0 | 27.0 | 2.5 | Single Age |
| 15HP35_59 | 483 | 3.25 | 1.12000 | 0.03300 | 0.12400 | 0.00420 | 0.49084 | 762.0 | 16.0 | 753.0 | 24.0 | 832 | 61 | 753.0 | 24.0 | 1.2 | Single Age |
| 15HP35_60 | 782 | 2.66 | 1.77200 | 0.03100 | 0.17470 | 0.00270 | 0.73304 | 1035.0 | 11.0 | 1038.0 | 15.0 | 1031 | 26 | 1031.0 | 26.0 | 0.7 | Single Age |
| 15HP35_61 | 77.8 | 0.62 | 10.09000 | 0.26000 | 0.41990 | 0.00860 | 0.42098 | 2441.0 | 24.0 | 2259.0 | 39.0 | 2626 | 38 | 2626.0 | 38.0 | 14.0 | Single Age |
| 15HP35_62 | 216.8 | 0.52 | 0.62600 | 0.01400 | 0.07890 | 0.00110 | 0.01950 | 492.9 | 8.7 | 489.7 | 6.8 | 495 | 56 | 489.7 | 6.8 | 0.6 | Single Age |
| 15HP35_63 | 393 | 2.05 | 1.59500 | 0.01900 | 0.15950 | 0.00160 | 0.35174 | 967.5 | 7.5 | 953.6 | 8.8 | 995 | 26 | 995.0 | 26.0 | 4.2 | Single Age |
| 15HP35_64 | 127.1 | 6.25 | 1.39800 | 0.04300 | 0.14560 | 0.00280 | 0.47552 | 886.0 | 18.0 | 876.0 | 16.0 | 952 | 63 | 952.0 | 63.0 | 8.0 | Single Age |
| 15HP35_65 | 245 | 1.46 | 2.13700 | 0.03400 | 0.19870 | 0.00290 | 0.62712 | 1161.0 | 11.0 | 1168.0 | 16.0 | 1131 | 28 | 1131.0 | 28.0 | 3.3 | Single Age |
| 15HP35_66 | 403 | 1.45 | 3.27000 | 0.04000 | 0.26000 | 0.00310 | 0.59169 | 1473.0 | 9.6 | 1491.0 | 16.0 | 1457 | 21 | 1457.0 | 21.0 | 2.3 | Single Age |
| 15HP35_67 | 100.4 | 1.15 | 2.07700 | 0.04300 | 0.19480 | 0.00360 | 0.30422 | 1139.0 | 14.0 | 1149.0 | 19.0 | 1130 | 45 | 1130.0 | 45.0 | 1.7 | Single Age |
| 15HP35_68 | 353 | 1.13 | 1.18900 | 0.02200 | 0.13000 | 0.00150 | 0.09104 | 795.0 | 10.0 | 787.9 | 8.4 | 799 | 35 | 787.9 | 8.4 | 0.9 | Single Age |
| 15HP35_69 | 99.4 | 0.83 | 2.13600 | 0.05500 | 0.19850 | 0.00450 | 0.18618 | 1158.0 | 18.0 | 1166.0 | 24.0 | 1135 | 49 | 1135.0 | 49.0 | 2.7 | Single Age |
| 15HP35_70 | 133.4 | 1.52 | 1.23000 | 0.02600 | 0.13100 | 0.00240 | 0.20214 | 814.0 | 12.0 | 793.0 | 14.0 | 867 | 49 | 793.0 | 14.0 | 2.6 | Single Age |
| 15HP35_71 | 106.8 | 0.53 | 1.35200 | 0.04000 | 0.14090 | 0.00370 | 0.11995 | 866.0 | 17.0 | 849.0 | 21.0 | 911 | 57 | 849.0 | 21.0 | 2.0 | Single Age |
| 15HP35_72 | 36.4 | 1.19 | 0.75100 | 0.05700 | 0.08630 | 0.00320 | 0.15250 | 570.0 | 32.0 | 533.0 | 19.0 | 760 | 160 | 533.0 | 19.0 | 6.5 | Single Age |
| 15HP35_73 | 955 | 7.92 | 1.59800 | 0.08900 | 0.16100 | 0.01000 | 0.60417 | 968.0 | 34.0 | 960.0 | 56.0 | 980 | 120 | 980.0 | 120.0 | 2.0 | Rim |
| 15HP35_73 | 311 | 0.82 | 3.14600 | 0.04200 | 0.25190 | 0.00380 | 0.52081 | 1444.0 | 10.0 | 1448.0 | 19.0 | 1449 | 30 | 1449.0 | 30.0 | 0.1 | Core |
| 15HP35_74 | 0.0066 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| 15HP35_75 | 551 | 2.91 | 11.02000 | 0.30000 | 0.48300 | 0.01200 | 0.78418 | 2524.0 | 25.0 | 2541.0 | 50.0 | 2515 | 19 | 2515.0 | 19.0 | 1.0 | Single Age |
| 15HP35_76 | 185 | 9.80 | 2.55300 | 0.07900 | 0.22310 | 0.00560 | 0.77591 | 1287.0 | 22.0 | 1297.0 | 29.0 | 1249 | 32 | 1249.0 | 32.0 | 3.8 | Single Age |
| 15HP35_77 | 52.3 | 0.47 | 0.70900 | 0.03500 | 0.08790 | 0.00210 | 0.14110 | 540.0 | 20.0 | 543.0 | 12.0 | 490 | 110 | 543.0 | 12.0 | 0.6 | Single Age |
| 15HP35_78 | 109.7 | 0.55 | 0.73200 | 0.03700 | 0.08550 | 0.00200 | 0.02159 | 554.0 | 21.0 | 530.0 | 11.0 | 590 | 110 | 530.0 | 11.0 | 4.3 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP35_79 | 155 | 0.54 | 0.77300 | 0.01900 | 0.09590 | 0.00160 | 0.22312 | 581.0 | 10.0 | 590.5 | 9.4 | 530 | 54 | 590.5 | 9.4 | 1.6 | Single Age |
| 15HP35_80 | 136 | 3.25 | 0.74900 | 0.02100 | 0.09140 | 0.00160 | 0.18198 | 568.0 | 12.0 | 563.4 | 9.7 | 551 | 65 | 563.4 | 9.7 | 0.8 | Single Age |
| 15HP35_81 | 906 | 1.79 | 1.62600 | 0.02500 | 0.16200 | 0.00220 | 0.49839 | 979.6 | 9.7 | 968.0 | 12.0 | 1009 | 28 | 1009.0 | 28.0 | 4.1 | Single Age |
| 15HP35_82 | 317 | 1.69 | 3.32800 | 0.09200 | 0.21990 | 0.00550 | 0.73873 | 1486.0 | 22.0 | 1281.0 | 29.0 | 1783 | 34 | 1783.0 | 34.0 | 28.2 | Single Age |
| 15HP35_83 | 25.17 | 0.90 | 1.13100 | 0.05900 | 0.12260 | 0.00450 | 0.20673 | 762.0 | 28.0 | 745.0 | 26.0 | 750 | 120 | 745.0 | 26.0 | 2.2 | Single Age |
| 15HP35_84 | 380 | 0.57 | 1.34600 | 0.02900 | 0.14540 | 0.00300 | 0.64141 | 865.0 | 13.0 | 875.0 | 17.0 | 837 | 37 | 837.0 | 17.0 | 1.2 | Single Age |
| 15HP35_85 | 383 | 3.33 | 1.33400 | 0.03800 | 0.13850 | 0.00380 | 0.69352 | 860.0 | 17.0 | 836.0 | 21.0 | 911 | 47 | 836.0 | 21.0 | 2.8 | Single Age |
| 15HP35_86 | 240 | 0.68 | 11.15000 | 0.11000 | 0.48510 | 0.00570 | 0.63728 | 2535.3 | 8.9 | 2549.0 | 25.0 | 2518 | 15 | 2518.0 | 15.0 | 1.2 | Single Age |
| 15HP35_87 | 100.9 | 0.82 | 1.48800 | 0.04400 | 0.14980 | 0.00470 | 0.19373 | 924.0 | 18.0 | 899.0 | 26.0 | 976 | 71 | 976.0 | 71.0 | 7.9 | Single Age |
| 15HP35_88 | 480 | 0.52 | 8.69000 | 0.17000 | 0.40360 | 0.00820 | 0.82459 | 2304.0 | 18.0 | 2184.0 | 38.0 | 2393 | 20 | 2393.0 | 20.0 | 8.7 | Single Age |
| 15HP35_89 | 196.4 | 1.10 | 10.68000 | 0.12000 | 0.46890 | 0.00450 | 0.36201 | 2494.0 | 11.0 | 2478.0 | 20.0 | 2491 | 17 | 2491.0 | 17.0 | 0.5 | Single Age |
| 15HP35_90 | 110.7 | 0.45 | 0.66300 | 0.02000 | 0.08220 | 0.00160 | 0.20391 | 517.0 | 13.0 | 508.9 | 9.6 | 513 | 81 | 508.9 | 9.6 | 1.6 | Single Age |
| 15HP35_91 | 73 | 0.57 | 0.67200 | 0.02700 | 0.08320 | 0.00270 | 0.44147 | 524.0 | 16.0 | 515.0 | 16.0 | 520 | 85 | 515.0 | 16.0 | 1.7 | Single Age |
| 15HP35_92 | 84.6 | 0.62 | 0.66200 | 0.02400 | 0.08220 | 0.00190 | 0.46903 | 517.0 | 14.0 | 509.0 | 12.0 | 549 | 67 | 509.0 | 12.0 | 1.5 | Single Age |
| 15HP35_93 | 58.4 | 0.40 | 0.77000 | 0.14000 | 0.08300 | 0.00230 | 0.02610 | 533.0 | 31.0 | 514.0 | 14.0 | 570 | 140 | 514.0 | 14.0 | 3.6 | Single Age |
| 15HP35_94 | 527 | 2.55 | 2.24000 | 0.13000 | 0.19320 | 0.00520 | 0.16235 | 1168.0 | 27.0 | 1138.0 | 28.0 | 1206 | 72 | 1206.0 | 72.0 | 5.6 | Single Age |
| 15HP35_95 | 53.1 | 1.82 | 1.13900 | 0.07200 | 0.10530 | 0.00390 | 0.03694 | 768.0 | 33.0 | 645.0 | 23.0 | 1110 | 120 | DISC | DISC | 16.0 | Single Age |
| 15HP35_96 | 56.8 | 0.54 | 0.66100 | 0.03600 | 0.07950 | 0.00210 | 0.09070 | 510.0 | 22.0 | 493.0 | 13.0 | 590 | 130 | 493.0 | 13.0 | 3.3 | Single Age |
| 15HP35_97 | 275 | 1.34 | 3.25100 | 0.04200 | 0.26500 | 0.00400 | 0.62546 | 1469.0 | 10.0 | 1515.0 | 20.0 | 1407 | 25 | 1407.0 | 25.0 | 7.7 | Single Age |
| 15HP35_98 | 78.3 | 0.48 | 0.61700 | 0.02800 | 0.07630 | 0.00200 | 0.11131 | 485.0 | 17.0 | 474.0 | 12.0 | 525 | 94 | 474.0 | 12.0 | 2.3 | Single Age |
| 15HP35_99 | 265.8 | 1.76 | 1.35900 | 0.03000 | 0.14550 | 0.00290 | 0.59987 | 870.0 | 13.0 | 875.0 | 16.0 | 809 | 42 | 809.0 | 16.0 | 0.6 | Single Age |
| 15HP35_100 | 421 | 1.95 | 8.84000 | 0.12000 | 0.41040 | 0.00670 | 0.70398 | 2323.0 | 12.0 | 2216.0 | 31.0 | 2392 | 21 | 2392.0 | 21.0 | 7.4 | Single Age |
| 15HP35_101 | 113.7 | 2.81 | 1.31200 | 0.03400 | 0.14080 | 0.00240 | 0.45827 | 853.0 | 15.0 | 849.0 | 14.0 | 866 | 48 | 849.0 | 14.0 | 0.5 | Single Age |
| 15HP35_102 | 500 | 18.78 | 5.78700 | 0.07100 | 0.35670 | 0.00370 | 0.70931 | 1944.0 | 11.0 | 1969.0 | 18.0 | 1917 | 15 | 1917.0 | 15.0 | 2.7 | Single Age |
| 15HP35_103 | 363 | 1.10 | 10.54000 | 0.08200 | 0.47170 | 0.00440 | 0.61943 | 2483.0 | 7.2 | 2490.0 | 19.0 | 2473 | 13 | 2473.0 | 13.0 | 0.7 | Single Age |
| 15HP35_104 | 65.1 | 1.06 | 1.85300 | 0.04400 | 0.17730 | 0.00290 | 0.02226 | 1066.0 | 15.0 | 1054.0 | 16.0 | 1084 | 59 | 1084.0 | 59.0 | 2.8 | Single Age |
| 15HP35_105 | 479 | 0.97 | 4.34200 | 0.03600 | 0.30040 | 0.00250 | 0.63309 | 1701.7 | 7.0 | 1693.0 | 12.0 | 1695 | 17 | 1695.0 | 17.0 | 0.1 | Single Age |
| 15HP35_106 | 273 | 4.59 | 19.02000 | 0.18000 | 0.59150 | 0.00790 | 0.70177 | 3042.3 | 9.2 | 2995.0 | 32.0 | 3069 | 17 | 3069.0 | 17.0 | 2.4 | Single Age |
| 15HP35_107 | 29.1 | 0.53 | 10.75000 | 0.22000 | 0.47100 | 0.00850 | 0.36931 | 2498.0 | 19.0 | 2486.0 | 37.0 | 2504 | 30 | 2504.0 | 30.0 | 0.7 | Single Age |
| 15HP35_108 | 254 | 2.21 | 1.39600 | 0.03900 | 0.14710 | 0.00290 | 0.49169 | 886.0 | 17.0 | 885.0 | 16.0 | 916 | 56 | 916.0 | 56.0 | 3.4 | Single Age |
| 15HP35_109 | 27.9 | 0.64 | 11.43000 | 0.20000 | 0.50610 | 0.00870 | 0.32540 | 2557.0 | 16.0 | 2638.0 | 37.0 | 2475 | 33 | 2475.0 | 33.0 | 6.6 | Single Age |
| 15HP35_110 | 0.0071 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| 15HP35_111 | 32.9 | 0.95 | 15.32000 | 0.46000 | 0.45000 | 0.01200 | 0.50958 | 2838.0 | 30.0 | 2392.0 | 53.0 | 3148 | 43 | 3148.0 | 43.0 | 24.0 | Single Age |
| 15HP35_112 | 56.41 | 0.79 | 20.13000 | 0.30000 | 0.60700 | 0.01100 | 0.66513 | 3096.0 | 14.0 | 3056.0 | 45.0 | 3135 | 21 | 3135.0 | 21.0 | 2.5 | Single Age |
| 15HP35_113 | 392 | 1.10 | 0.68000 | 0.01000 | 0.08560 | 0.00110 | 0.12498 | 526.5 | 6.3 | 529.6 | 6.6 | 517 | 38 | 529.6 | 6.6 | 0.6 | Single Age |
| 15HP35_114 | 54.5 | 0.98 | 4.73000 | 0.13000 | 0.31320 | 0.00850 | 0.43621 | 1774.0 | 23.0 | 1755.0 | 42.0 | 1784 | 56 | 1784.0 | 56.0 | 1.6 | Single Age |
| 15HP35_115 | 156.1 | 1.16 | 10.77000 | 0.09600 | 0.45720 | 0.00540 | 0.54697 | 2504.1 | 8.1 | 2433.0 | 24.0 | 2573 | 16 | 2573.0 | 16.0 | 5.4 | Single Age |
| 15HP35_116 | 357 | 1.52 | 1.18200 | 0.01900 | 0.13140 | 0.00140 | 0.46688 | 791.7 | 8.8 | 795.6 | 8.0 | 800 | 28 | 795.6 | 8.0 | 0.5 | Single Age |
| 15HP35_117 | 214 | 2.86 | 1.31200 | 0.03000 | 0.13900 | 0.00260 | 0.48500 | 849.0 | 13.0 | 839.0 | 15.0 | 881 | 37 | 839.0 | 15.0 | 1.2 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP35_118 | 158 | 0.71 | 0.71700 | 0.02100 | 0.08930 | 0.00140 | 0.03794 | 549.0 | 12.0 | 551.6 | 8.3 | 549 | 70 | 551.6 | 8.3 | 0.5 | Single Age |
| 15HP35_119 | 576 | 7.30 | 0.88600 | 0.02400 | 0.10490 | 0.00200 | 0.30250 | 644.0 | 13.0 | 643.0 | 12.0 | 658 | 58 | 643.0 | 12.0 | 0.2 | Rim |
| 15HP35_119 | 524 | 4.63 | 1.29300 | 0.04300 | 0.13660 | 0.00300 | 0.54716 | 842.0 | 19.0 | 826.0 | 17.0 | 880 | 52 | 826.0 | 17.0 | 1.9 | Core |
| 15HP35_119 | 196.5 | 1.15 | 2.43000 | 0.15000 | 0.21400 | 0.01000 | 0.93842 | 1251.0 | 44.0 | 1251.0 | 56.0 | 1263 | 45 | 1263.0 | 45.0 | 1.0 | Core |
| 15HP35_120 | 149.4 | 1.61 | 1.69600 | 0.05000 | 0.17230 | 0.00500 | 0.67325 | 1006.0 | 19.0 | 1025.0 | 28.0 | 980 | 52 | 980.0 | 52.0 | 4.6 | Single Age |
| 15HP37_1 | 68 | 0.42 | 0.61800 | 0.02500 | 0.07840 | 0.00180 | 0.07015 | 489.0 | 15.0 | 487.0 | 11.0 | 438 | 95 | 487.0 | 11.0 | 0.4 | Single Age |
| 15HP37_2 | 218 | 0.94 | 2.10000 | 0.11000 | 0.19410 | 0.00960 | 0.80931 | 1146.0 | 37.0 | 1143.0 | 52.0 | 1175 | 63 | 1175.0 | 63.0 | 2.7 | Rim |
| 15HP37_2 | 482 | 16.84 | 3.83000 | 0.14000 | 0.27640 | 0.00990 | 0.87324 | 1596.0 | 29.0 | 1572.0 | 50.0 | 1616 | 33 | 1616.0 | 33.0 | 2.7 | Core |
| 15HP37_3 | 0.062 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| 15HP37_4 | 447 | 1.66 | 1.62900 | 0.05300 | 0.16530 | 0.00540 | 0.85694 | 983.0 | 20.0 | 989.0 | 29.0 | 976 | 32 | 976.0 | 32.0 | 1.3 | Single Age |
| 15HP37_5 | 393 | 1.92 | 1.30100 | 0.02100 | 0.14080 | 0.00190 | 0.58079 | 847.7 | 9.2 | 851.0 | 11.0 | 841 | 30 | 841.0 | 11.0 | 0.4 | Single Age |
| 15HP37_6 | 394 | 1.40 | 1.59100 | 0.02600 | 0.16030 | 0.00200 | 0.49854 | 967.0 | 10.0 | 958.0 | 11.0 | 985 | 28 | 985.0 | 28.0 | 2.7 | Single Age |
| 15HP37_7 | 589 | 1.71 | 1.14600 | 0.01300 | 0.12800 | 0.00160 | 0.30138 | 775.1 | 6.2 | 777.3 | 9.0 | 769 | 26 | 777.3 | 9.0 | 0.3 | Single Age |
| 15HP37_9 | 221 | 0.91 | 9.10000 | 0.13000 | 0.41520 | 0.00670 | 0.72267 | 2347.0 | 13.0 | 2241.0 | 30.0 | 2446 | 17 | 2446.0 | 17.0 | 8.4 | Single Age |
| 15HP37_10 | 944 | 4.99 | 1.97100 | 0.04300 | 0.18600 | 0.00410 | 0.72775 | 1104.0 | 15.0 | 1099.0 | 22.0 | 1121 | 33 | 1121.0 | 33.0 | 2.0 | Single Age |
| 15HP37_11 | 620 | 2.80 | 8.74000 | 0.29000 | 0.43100 | 0.01100 | 0.90764 | 2310.0 | 31.0 | 2306.0 | 51.0 | 2293 | 20 | 2293.0 | 20.0 | 0.6 | Single Age |
| 15HP37_12 | 412 | 1.66 | 6.60500 | 0.08000 | 0.38690 | 0.00550 | 0.64887 | 2062.0 | 11.0 | 2111.0 | 26.0 | 2013 | 20 | 2013.0 | 20.0 | 4.9 | Single Age |
| 15HP37_13 | 533 | 10.32 | 1.22700 | 0.03400 | 0.13070 | 0.00300 | 0.04255 | 813.0 | 16.0 | 791.0 | 17.0 | 890 | 31 | 791.0 | 17.0 | 2.7 | Single Age |
| 15HP37_14 | 178 | 3.78 | 2.05700 | 0.04100 | 0.19690 | 0.00390 | 0.31834 | 1133.0 | 14.0 | 1158.0 | 21.0 | 1113 | 46 | 1113.0 | 46.0 | 4.0 | Single Age |
| 15HP37_15 | 450 | 3.27 | 3.89000 | 0.12000 | 0.29150 | 0.00980 | 0.74438 | 1606.0 | 25.0 | 1646.0 | 49.0 | 1533 | 46 | 1533.0 | 46.0 | 7.4 | Single Age |
| 15HP37_16 | 635 | 3.96 | 5.97700 | 0.08600 | 0.35220 | 0.00630 | 0.61267 | 1971.0 | 12.0 | 1944.0 | 30.0 | 2015 | 25 | 2015.0 | 25.0 | 3.5 | Single Age |
| 15HP37_17 | 91 | 0.79 | 1.91700 | 0.05400 | 0.18060 | 0.00270 | 0.28382 | 1084.0 | 19.0 | 1070.0 | 15.0 | 1116 | 56 | 1116.0 | 56.0 | 4.1 | Single Age |
| 15HP37_19 | 489 | 2.05 | 4.31600 | 0.06500 | 0.29680 | 0.00520 | 0.70505 | 1696.0 | 12.0 | 1674.0 | 26.0 | 1723 | 22 | 1723.0 | 22.0 | 2.8 | Single Age |
| 15HP37_20 | 127.5 | 1.67 | 1.44800 | 0.03000 | 0.14770 | 0.00250 | 0.29967 | 911.0 | 13.0 | 888.0 | 14.0 | 960 | 48 | 960.0 | 48.0 | 7.5 | Single Age |
| 15HP37_21 | 648 | 14.10 | 7.20000 | 0.14000 | 0.39690 | 0.00750 | 0.63515 | 2138.0 | 17.0 | 2153.0 | 34.0 | 2113 | 30 | 2113.0 | 30.0 | 1.9 | Single Age |
| 15HP37_22 | 483 | 16.10 | 0.82300 | 0.03700 | 0.09830 | 0.00420 | 0.46621 | 609.0 | 20.0 | 604.0 | 25.0 | 605 | 99 | 604.0 | 25.0 | 0.8 | Rim |
| 15HP37_22 | 225 | 3.16 | 1.13000 | 0.05200 | 0.12630 | 0.00530 | 0.66538 | 769.0 | 26.0 | 766.0 | 30.0 | 775 | 76 | 766.0 | 30.0 | 0.4 | Core |
| 15HP37_23 | 442 | 3.88 | 1.53800 | 0.02300 | 0.15700 | 0.00220 | 0.51472 | 944.8 | 9.1 | 940.0 | 12.0 | 959 | 29 | 959.0 | 29.0 | 2.0 | Single Age |
| 15HP37_24 | 243 | 1.28 | 1.21700 | 0.02100 | 0.13380 | 0.00170 | 0.19386 | 808.5 | 9.3 | 809.2 | 9.9 | 805 | 36 | 809.2 | 9.9 | 0.1 | Single Age |
| 15HP37_25 | 165.1 | 1.06 | 4.64000 | 0.10000 | 0.30800 | 0.00590 | 0.55482 | 1757.0 | 18.0 | 1734.0 | 28.0 | 1768 | 37 | 1768.0 | 37.0 | 1.9 | Single Age |
| 15HP37_26 | 777 | 49.20 | 1.67700 | 0.07200 | 0.16490 | 0.00670 | 0.74735 | 998.0 | 27.0 | 983.0 | 37.0 | 1020 | 61 | 1020.0 | 61.0 | 3.6 | Rim |
| 15HP37_26 | 333 | 1.25 | 2.57000 | 0.10000 | 0.21780 | 0.00870 | 0.88924 | 1289.0 | 30.0 | 1269.0 | 46.0 | 1306 | 47 | 1306.0 | 47.0 | 2.8 | Core |
| 15HP37_27 | 1360 | 10.10 | 1.45400 | 0.04800 | 0.15210 | 0.00460 | 0.89596 | 910.0 | 20.0 | 912.0 | 26.0 | 934 | 26 | 934.0 | 26.0 | 2.4 | Single Age |
| 15HP37_28 | 326 | 4.54 | 5.20000 | 0.15000 | 0.32360 | 0.00770 | 0.66707 | 1850.0 | 24.0 | 1806.0 | 37.0 | 1878 | 43 | 1878.0 | 43.0 | 3.8 | Single Age |
| 15HP37_29 | 286 | 3.77 | 1.34300 | 0.01900 | 0.14350 | 0.00170 | 0.26857 | 864.0 | 8.3 | 864.4 | 9.8 | 879 | 36 | 879.0 | 36.0 | 1.7 | Single Age |
| 15HP37_30 | 95.6 | 0.78 | 15.49000 | 0.60000 | 0.53300 | 0.01200 | 0.80532 | 2844.0 | 37.0 | 2751.0 | 51.0 | 2915 | 34 | 2915.0 | 34.0 | 5.6 | Single Age |
| 15HP37_31 | 204.4 | 1.63 | 4.50500 | 0.05900 | 0.31360 | 0.00430 | 0.63194 | 1731.0 | 11.0 | 1758.0 | 21.0 | 1709 | 25 | 1709.0 | 25.0 | 2.9 | Single Age |
| 15HP37_32 | 510 | 6.72 | 1.67200 | 0.03500 | 0.16850 | 0.00380 | 0.69226 | 998.0 | 13.0 | 1003.0 | 21.0 | 970 | 33 | 970.0 | 33.0 | 3.4 | Single Age |
| 15HP37_33 | 513 | 1.36 | 1.53800 | 0.02900 | 0.15740 | 0.00240 | 0.68984 | 946.0 | 12.0 | 942.0 | 13.0 | 936 | 25 | 936.0 | 25.0 | 0.6 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP37_34 | 737 | 18.20 | 1.39300 | 0.01500 | 0.14760 | 0.00140 | 0.42627 | 885.4 | 6.3 | 887.2 | 8.0 | 878 | 23 | 878.0 | 23.0 | 1.0 | Single Age |
| 15HP37_35 | 96.1 | 1.55 | 1.11500 | 0.02800 | 0.12730 | 0.00310 | 0.51415 | 761.0 | 13.0 | 772.0 | 18.0 | 706 | 54 | 772.0 | 18.0 | 1.4 | Single Age |
| 15HP37_38 | 215 | 1.26 | 1.22000 | 0.02200 | 0.13370 | 0.00210 | 0.23546 | 811.0 | 10.0 | 809.0 | 12.0 | 810 | 42 | 809.0 | 12.0 | 0.2 | Single Age |
| 15HP37_40 | 304 | 1.90 | 4.58100 | 0.07600 | 0.31270 | 0.00670 | 0.70494 | 1746.0 | 14.0 | 1753.0 | 33.0 | 1736 | 24 | 1736.0 | 24.0 | 1.0 | Single Age |
| 15HP37_41 | 498 | 1.11 | 1.35300 | 0.02400 | 0.14160 | 0.00250 | 0.68040 | 868.0 | 11.0 | 853.0 | 14.0 | 897 | 31 | 897.0 | 31.0 | 4.9 | Single Age |
| 15HP37_42 | 151.9 | 1.56 | 1.34500 | 0.04100 | 0.13810 | 0.00360 | 0.40982 | 863.0 | 18.0 | 834.0 | 20.0 | 917 | 61 | 834.0 | 20.0 | 3.4 | Single Age |
| 15HP37_43 | 452 | 0.98 | 2.29000 | 0.03600 | 0.20720 | 0.00310 | 0.03908 | 1208.0 | 11.0 | 1215.0 | 16.0 | 1191 | 25 | 1191.0 | 25.0 | 2.0 | Single Age |
| 15HP37_44 | 132.7 | 0.77 | 2.59900 | 0.09000 | 0.20970 | 0.00480 | 0.36187 | 1296.0 | 25.0 | 1227.0 | 25.0 | 1373 | 60 | 1373.0 | 60.0 | 10.6 | Single Age |
| 15HP37_45 | 915 | 4.72 | 1.46200 | 0.05300 | 0.15090 | 0.00610 | 0.82649 | 912.0 | 22.0 | 905.0 | 34.0 | 905 | 54 | 905.0 | 54.0 | 0.0 | Single Age |
| 15HP37_46 | 155.3 | 0.93 | 1.28900 | 0.02700 | 0.14040 | 0.00310 | 0.36707 | 839.0 | 12.0 | 847.0 | 18.0 | 839 | 49 | 847.0 | 18.0 | 1.0 | Single Age |
| 15HP37_47 | 603 | 3.27 | 1.64100 | 0.03900 | 0.16960 | 0.00360 | 0.76151 | 985.0 | 15.0 | 1009.0 | 20.0 | 920 | 29 | 920.0 | 29.0 | 9.7 | Single Age |
| 15HP37_48 | 744 | 2.56 | 5.28800 | 0.08600 | 0.33430 | 0.00740 | 0.75179 | 1869.0 | 14.0 | 1857.0 | 35.0 | 1870 | 28 | 1870.0 | 28.0 | 0.7 | Single Age |
| 15HP37_49 | 660 | 2.51 | 1.30300 | 0.02700 | 0.13880 | 0.00300 | 0.65923 | 846.0 | 12.0 | 837.0 | 17.0 | 863 | 37 | 837.0 | 17.0 | 1.1 | Single Age |
| 15HP37_50 | 174.3 | 1.34 | 1.51300 | 0.03000 | 0.15810 | 0.00300 | 0.46203 | 936.0 | 12.0 | 946.0 | 17.0 | 915 | 42 | 915.0 | 42.0 | 3.4 | Single Age |
| 15HP37_51 | 772 | 6.40 | 2.52000 | 0.10000 | 0.21810 | 0.00780 | 0.78729 | 1276.0 | 30.0 | 1271.0 | 42.0 | 1294 | 49 | 1294.0 | 49.0 | 1.8 | Rim |
| 15HP37_51 | 250 | 1.84 | 3.19900 | 0.07200 | 0.25630 | 0.00510 | 0.51742 | 1459.0 | 18.0 | 1475.0 | 27.0 | 1428 | 38 | 1428.0 | 38.0 | 3.3 | Core |
| 15HP37_52 | 413 | 2.17 | 5.50000 | 0.05900 | 0.34880 | 0.00440 | 0.67351 | 1899.8 | 9.2 | 1931.0 | 21.0 | 1868 | 17 | 1868.0 | 17.0 | 3.4 | Single Age |
| 15HP37_53 | 554 | 1.49 | 1.54300 | 0.03000 | 0.15640 | 0.00310 | 0.56899 | 949.0 | 12.0 | 940.0 | 17.0 | 986 | 37 | 986.0 | 37.0 | 4.7 | Single Age |
| 15HP37_54 | 3610 | 17.80 | 0.59460 | 0.00940 | 0.07650 | 0.00120 | 0.72571 | 473.5 | 6.0 | 474.9 | 7.0 | 465 | 26 | 474.9 | 7.0 | 0.3 | Single Age |
| 15HP37_55 | 1578 | 4.92 | 11.58000 | 0.38000 | 0.45800 | 0.02000 | 0.87167 | 2570.0 | 30.0 | 2427.0 | 89.0 | 2675 | 42 | 2675.0 | 42.0 | 9.3 | Single Age |
| 15HP37_56 | 207 | 47.70 | 0.67600 | 0.02100 | 0.08670 | 0.00860 | 0.20348 | 524.0 | 12.0 | 536.0 | 51.0 | 500 | 250 | 536.0 | 51.0 | 2.3 | Rim |
| 15HP37_56 | 101.9 | 0.61 | 10.04000 | 0.37000 | 0.40100 | 0.01600 | 0.77569 | 2435.0 | 34.0 | 2170.0 | 72.0 | 2650 | 42 | 2650.0 | 42.0 | 18.1 | Core |
| 15HP37_57 | 336 | 3.86 | 1.51800 | 0.02500 | 0.15580 | 0.00250 | 0.55331 | 937.0 | 10.0 | 933.0 | 14.0 | 959 | 35 | 959.0 | 35.0 | 2.7 | Single Age |
| 15HP37_58 | 183 | 4.92 | 10.39000 | 0.18000 | 0.45970 | 0.00820 | 0.64547 | 2469.0 | 16.0 | 2437.0 | 36.0 | 2502 | 25 | 2502.0 | 25.0 | 2.6 | Single Age |
| 15HP37_59 | 504 | 2.31 | 1.33500 | 0.02100 | 0.13880 | 0.00200 | 0.43265 | 861.5 | 9.5 | 837.0 | 12.0 | 918 | 36 | 837.0 | 12.0 | 2.8 | Single Age |
| 15HP37_60 | 288 | 1.62 | 1.96600 | 0.03200 | 0.19210 | 0.00270 | 0.42737 | 1105.0 | 11.0 | 1132.0 | 15.0 | 1069 | 34 | 1069.0 | 34.0 | 5.9 | Single Age |
| 15HP37_61 | 203 | 1.40 | 8.51000 | 0.12000 | 0.42350 | 0.00660 | 0.57204 | 2286.0 | 12.0 | 2275.0 | 30.0 | 2293 | 22 | 2293.0 | 22.0 | 0.8 | Single Age |
| 15HP37_62 | 845 | 2.61 | 1.33500 | 0.04100 | 0.13680 | 0.00430 | 0.84220 | 859.0 | 18.0 | 826.0 | 24.0 | 932 | 33 | 826.0 | 24.0 | 3.8 | Single Age |
| 15HP37_63 | 111 | 133.00 | 0.67400 | 0.05700 | 0.08310 | 0.00400 | 0.15743 | 520.0 | 35.0 | 514.0 | 24.0 | 460 | 210 | 514.0 | 24.0 | 1.2 | Rim |
| 15HP37_63 | 171.4 | 1.77 | 4.26000 | 0.14000 | 0.30200 | 0.00830 | 0.76745 | 1684.0 | 27.0 | 1700.0 | 41.0 | 1650 | 52 | 1650.0 | 52.0 | 3.0 | Core |
| 15HP37_64 | 164 | 1.61 | 4.81000 | 0.09200 | 0.31790 | 0.00630 | 0.85649 | 1784.0 | 16.0 | 1778.0 | 31.0 | 1786 | 27 | 1786.0 | 27.0 | 0.4 | Single Age |
| 15HP37_65 | 564 | 0.92 | 2.54900 | 0.04500 | 0.20970 | 0.00290 | 0.59745 | 1285.0 | 13.0 | 1227.0 | 16.0 | 1378 | 26 | 1378.0 | 26.0 | 11.0 | Single Age |
| 15HP37_66 | 1023 | 6.18 | 10.41000 | 0.09800 | 0.45720 | 0.00460 | 0.75161 | 2472.4 | 8.5 | 2427.0 | 21.0 | 2507 | 12 | 2507.0 | 12.0 | 3.2 | Single Age |
| 15HP37_67 | 2578 | 17.00 | 2.07800 | 0.05500 | 0.19160 | 0.00730 | 0.58460 | 1141.0 | 18.0 | 1130.0 | 39.0 | 1187 | 61 | 1187.0 | 61.0 | 4.8 | Rim |
| 15HP37_67 | 772 | 25.10 | 12.79000 | 0.33000 | 0.50700 | 0.01500 | 0.79296 | 2662.0 | 24.0 | 2642.0 | 62.0 | 2677 | 30 | 2677.0 | 30.0 | 1.3 | Core |
| 15HP37_68 | 31.3 | 0.51 | 10.04000 | 0.20000 | 0.45040 | 0.00950 | 0.38943 | 2436.0 | 18.0 | 2402.0 | 41.0 | 2451 | 39 | 2451.0 | 39.0 | 2.0 | Single Age |
| 15HP37_69 | 823 | 9.40 | 1.50900 | 0.03200 | 0.15450 | 0.00410 | 0.44311 | 934.0 | 13.0 | 926.0 | 23.0 | 944 | 50 | 944.0 | 50.0 | 1.9 | Rim |
| 15HP37_69 | 493 | 0.65 | 1.73500 | 0.03800 | 0.17400 | 0.00360 | 0.44385 | 1021.0 | 14.0 | 1034.0 | 20.0 | 977 | 46 | 977.0 | 46.0 | 5.8 | Core |
| 15HP37_70 | 149 | 2.25 | 3.25000 | 0.06200 | 0.25960 | 0.00550 | 0.61509 | 1472.0 | 15.0 | 1491.0 | 28.0 | 1441 | 29 | 1441.0 | 29.0 | 3.5 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP37_71 | 346.4 | 3.12 | 8.56000 | 0.15000 | 0.39410 | 0.00780 | 0.74833 | 2291.0 | 16.0 | 2140.0 | 36.0 | 2422 | 22 | 2422.0 | 22.0 | 11.6 | Single Age |
| 15HP37_72 | 127.7 | 0.79 | 3.26300 | 0.07400 | 0.25120 | 0.00680 | 0.53000 | 1474.0 | 18.0 | 1443.0 | 35.0 | 1516 | 49 | 1516.0 | 49.0 | 4.8 | Single Age |
| 15HP37_73 | 397 | 0.85 | 1.54900 | 0.03300 | 0.15340 | 0.00260 | 0.47397 | 949.0 | 13.0 | 920.0 | 14.0 | 1028 | 42 | 1028.0 | 42.0 | 10.5 | Single Age |
| 15HP37_74 | 62.9 | 1.43 | 0.12600 | 0.01200 | 0.01960 | 0.00100 | 0.24430 | 119.0 | 11.0 | 125.1 | 6.5 | 120 | 210 | 125.1 | 6.5 | 5.1 | Single Age |
| 15HP37_75 | 332 | 2.61 | 10.54000 | 0.30000 | 0.46400 | 0.01800 | 0.67231 | 2483.0 | 26.0 | 2459.0 | 76.0 | 2487 | 44 | 2487.0 | 44.0 | 1.1 | Single Age |
| 15HP37_76 | 272 | 2.37 | 1.65300 | 0.03200 | 0.15920 | 0.00240 | 0.44835 | 991.0 | 12.0 | 952.0 | 13.0 | 1047 | 38 | 1047.0 | 38.0 | 9.1 | Single Age |
| 15HP37_78 | 315 | 2.57 | 1.22300 | 0.04000 | 0.12700 | 0.00330 | 0.64701 | 812.0 | 18.0 | 770.0 | 19.0 | 910 | 55 | 770.0 | 19.0 | 5.2 | Single Age |
| 15HP37_79 | 108.3 | 1.34 | 1.34900 | 0.05200 | 0.13250 | 0.00400 | 0.36711 | 869.0 | 21.0 | 802.0 | 23.0 | 1027 | 78 | 802.0 | 23.0 | 7.7 | Single Age |
| 15HP37_80 | 614 | 1.83 | 1.32800 | 0.02500 | 0.14030 | 0.00290 | 0.64250 | 857.0 | 11.0 | 846.0 | 16.0 | 874 | 35 | 846.0 | 16.0 | 1.3 | Single Age |
| 15HP37_81 | 161 | 1.48 | 1.14300 | 0.02700 | 0.12590 | 0.00280 | 0.32901 | 774.0 | 13.0 | 766.0 | 16.0 | 766 | 59 | 766.0 | 16.0 | 1.0 | Single Age |
| 15HP37_82 | 530 | 2.83 | 1.02700 | 0.03800 | 0.10520 | 0.00360 | 0.80998 | 716.0 | 19.0 | 644.0 | 21.0 | 931 | 49 | DISC | DISC | 10.1 | Single Age |
| 15HP37_83 | 971 | 29.60 | 1.67900 | 0.03400 | 0.16690 | 0.00380 | 0.74368 | 1004.0 | 13.0 | 997.0 | 21.0 | 982 | 31 | 982.0 | 31.0 | 1.5 | Single Age |
| 15HP37_84 | 274.8 | 1.84 | 1.56900 | 0.04100 | 0.15560 | 0.00530 | 0.62323 | 957.0 | 16.0 | 932.0 | 29.0 | 984 | 64 | 984.0 | 64.0 | 5.3 | Single Age |
| 15HP37_86 | 729 | 5.99 | 1.42300 | 0.01700 | 0.14800 | 0.00190 | 0.74552 | 898.9 | 7.3 | 890.0 | 11.0 | 915 | 20 | 915.0 | 20.0 | 2.7 | Single Age |
| 15HP37_87 | 194 | 0.89 | 2.08800 | 0.04800 | 0.19120 | 0.00370 | 0.62759 | 1143.0 | 16.0 | 1127.0 | 20.0 | 1156 | 36 | 1156.0 | 36.0 | 2.5 | Single Age |
| 15HP37_88 | 107.7 | 0.40 | 9.56000 | 0.21000 | 0.41630 | 0.00880 | 0.74912 | 2394.0 | 20.0 | 2242.0 | 40.0 | 2485 | 27 | 2485.0 | 27.0 | 9.8 | Single Age |
| 15HP37_89 | 31.3 | 0.73 | 11.25000 | 0.63000 | 0.20190 | 0.00970 | 0.66358 | 2548.0 | 57.0 | 1184.0 | 52.0 | 3882 | 74 | DISC | DISC | 69.5 | Single Age |
| 15HP37_90 | 623 | 2.19 | 1.48800 | 0.04900 | 0.14510 | 0.00530 | 0.74893 | 922.0 | 20.0 | 877.0 | 31.0 | 1029 | 56 | 1029.0 | 56.0 | 14.8 | Single Age |
| 15HP37_91 | 97 | 0.84 | 1.36600 | 0.03800 | 0.14400 | 0.00400 | 0.46592 | 874.0 | 16.0 | 870.0 | 23.0 | 901 | 67 | 901.0 | 67.0 | 3.4 | Single Age |
| 15HP37_92 | 141.3 | 0.72 | 1.50100 | 0.04000 | 0.15220 | 0.00410 | 0.51842 | 928.0 | 16.0 | 912.0 | 23.0 | 932 | 54 | 932.0 | 54.0 | 2.1 | Single Age |
| 15HP37_93 | 274 | 3.69 | 29.80000 | 1.30000 | 0.64800 | 0.03500 | 0.94208 | 3475.0 | 46.0 | 3210.0 | 140.0 | 3613 | 26 | 3613.0 | 26.0 | 11.2 | Single Age |
| 15HP37_94 | 460 | 4.04 | 1.15000 | 0.03000 | 0.12610 | 0.00270 | 0.65247 | 778.0 | 14.0 | 768.0 | 15.0 | 806 | 42 | 768.0 | 15.0 | 1.3 | Single Age |
| 15HP37_96 | 174.9 | 1.58 | 1.61000 | 0.04900 | 0.16050 | 0.00470 | 0.71414 | 972.0 | 19.0 | 959.0 | 26.0 | 1009 | 44 | 1009.0 | 44.0 | 5.0 | Single Age |
| 15HP37_97 | 361 | 1.97 | 1.12200 | 0.03600 | 0.12100 | 0.00390 | 0.84508 | 764.0 | 17.0 | 735.0 | 23.0 | 852 | 44 | 735.0 | 23.0 | 3.8 | Single Age |
| 15HP37_98 | 344 | 1.47 | 1.87800 | 0.04700 | 0.18260 | 0.00520 | 0.76771 | 1075.0 | 16.0 | 1080.0 | 28.0 | 1045 | 41 | 1045.0 | 41.0 | 3.3 | Single Age |
| 15HP37_99 | 892 | 13.90 | 13.35000 | 0.41000 | 0.52000 | 0.01300 | 0.60106 | 2709.0 | 31.0 | 2710.0 | 59.0 | 2724 | 45 | 2724.0 | 45.0 | 0.5 | Single Age |
| 15HP37_100 | 505 | 3.22 | 4.74000 | 0.15000 | 0.31500 | 0.00850 | 0.90310 | 1774.0 | 26.0 | 1764.0 | 42.0 | 1806 | 20 | 1806.0 | 20.0 | 2.3 | Single Age |
| 15HP37_101 | 54.6 | 1.90 | 19.90000 | 0.75000 | 0.49900 | 0.01400 | 0.70885 | 3091.0 | 34.0 | 2609.0 | 58.0 | 3391 | 41 | 3391.0 | 41.0 | 23.1 | Single Age |
| 15HP37_102 | 457 | 1.20 | 2.91000 | 0.04400 | 0.24190 | 0.00340 | 0.71897 | 1383.0 | 11.0 | 1396.0 | 18.0 | 1366 | 21 | 1366.0 | 21.0 | 2.2 | Single Age |
| 15HP37_103 | 334 | 43.00 | 2.24700 | 0.06000 | 0.20410 | 0.00510 | 0.67770 | 1192.0 | 19.0 | 1196.0 | 27.0 | 1184 | 42 | 1184.0 | 42.0 | 1.0 | Single Age |
| 15HP37_104 | 335.6 | 1.48 | 10.63000 | 0.12000 | 0.46830 | 0.00640 | 0.64429 | 2491.0 | 11.0 | 2475.0 | 28.0 | 2507 | 16 | 2507.0 | 16.0 | 1.3 | Single Age |
| 15HP37_105 | 1130 | 9.05 | 1.31800 | 0.04800 | 0.14030 | 0.00430 | 0.83537 | 851.0 | 21.0 | 846.0 | 24.0 | 881 | 37 | 846.0 | 24.0 | 0.6 | Single Age |
| 15HP37_106 | 320 | 1.45 | 1.31300 | 0.02900 | 0.13730 | 0.00310 | 0.68765 | 850.0 | 13.0 | 829.0 | 18.0 | 946 | 36 | 829.0 | 18.0 | 2.5 | Single Age |
| 15HP37_107 | 189.3 | 3.85 | 1.79500 | 0.02700 | 0.17690 | 0.00280 | 0.36422 | 1042.8 | 9.6 | 1049.0 | 16.0 | 1037 | 37 | 1037.0 | 37.0 | 1.2 | Single Age |
| 15HP37_108 | 1119 | 11.94 | 1.48200 | 0.02800 | 0.15250 | 0.00370 | 0.75347 | 924.0 | 12.0 | 917.0 | 21.0 | 946 | 34 | 946.0 | 34.0 | 3.1 | Single Age |
| 15HP37_109 | 97.8 | 0.92 | 1.05100 | 0.03700 | 0.12000 | 0.00290 | 0.42723 | 726.0 | 18.0 | 730.0 | 16.0 | 718 | 76 | 730.0 | 16.0 | 0.6 | Single Age |
| 15HP37_110 | 1210 | 5.57 | 1.55800 | 0.02200 | 0.15760 | 0.00210 | 0.66355 | 953.8 | 8.5 | 943.0 | 12.0 | 980 | 23 | 980.0 | 23.0 | 3.8 | Single Age |
| 15HP37_111 | 169 | 1.59 | 2.73100 | 0.04300 | 0.22830 | 0.00380 | 0.57175 | 1339.0 | 12.0 | 1325.0 | 20.0 | 1370 | 30 | 1370.0 | 30.0 | 3.3 | Single Age |
| 15HP37_113 | 68.9 | 0.89 | 1.19500 | 0.04700 | 0.13520 | 0.00350 | 0.27284 | 795.0 | 22.0 | 817.0 | 20.0 | 732 | 76 | 817.0 | 20.0 | 2.8 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP37_114 | 555 | 6.98 | 1.32600 | 0.03600 | 0.14120 | 0.00450 | 0.89316 | 859.0 | 15.0 | 851.0 | 25.0 | 908 | 29 | 908.0 | 29.0 | 6.3 | Single Age |
| 15HP37_115 | 438 | 7.80 | 1.45400 | 0.03300 | 0.15140 | 0.00400 | 0.20958 | 911.0 | 14.0 | 908.0 | 22.0 | 932 | 67 | 932.0 | 67.0 | 2.6 | Rim |
| 15HP37_115 | 257 | 1.67 | 1.94200 | 0.04700 | 0.18260 | 0.00370 | 0.53920 | 1095.0 | 16.0 | 1081.0 | 20.0 | 1137 | 41 | 1137.0 | 41.0 | 4.9 | Core |
| 15HP37_116 | 679 | 11.10 | 5.48000 | 0.05300 | 0.34830 | 0.00420 | 0.78036 | 1899.2 | 8.5 | 1926.0 | 20.0 | 1891 | 15 | 1891.0 | 15.0 | 1.9 | Single Age |
| 15HP37_117 | 114.9 | 0.75 | 1.57300 | 0.03600 | 0.16390 | 0.00330 | 0.25289 | 958.0 | 14.0 | 978.0 | 18.0 | 916 | 51 | 916.0 | 51.0 | 6.8 | Single Age |
| 15HP37_118 | 548 | 9.50 | 1.87600 | 0.02400 | 0.18110 | 0.00250 | 0.53217 | 1072.0 | 8.4 | 1072.0 | 13.0 | 1099 | 26 | 1099.0 | 26.0 | 2.5 | Single Age |
| 15HP37_119 | 226 | 4.50 | 1.50800 | 0.03200 | 0.15370 | 0.00280 | 0.33299 | 932.0 | 13.0 | 921.0 | 16.0 | 984 | 44 | 984.0 | 44.0 | 6.4 | Single Age |
| 15HP37_120 | 255 | 0.76 | 1.32000 | 0.02300 | 0.14070 | 0.00200 | 0.38183 | 853.0 | 10.0 | 848.0 | 11.0 | 881 | 39 | 848.0 | 11.0 | 0.6 | Single Age |
| 15HP39_1 | 153 | 1.40 | 1.79100 | 0.03800 | 0.17520 | 0.00310 | 0.64426 | 1044.0 | 14.0 | 1042.0 | 16.0 | 1035 | 37 | 1035.0 | 37.0 | 0.7 | Single Age |
| 15HP39_2 | 131 | 2.15 | 1.04100 | 0.02700 | 0.11890 | 0.00240 | 0.28425 | 725.0 | 13.0 | 724.0 | 14.0 | 713 | 56 | 724.0 | 14.0 | 0.1 | Single Age |
| 15HP39_3 | 268.7 | 1.62 | 4.28500 | 0.05100 | 0.29790 | 0.00350 | 0.56573 | 1689.7 | 9.9 | 1681.0 | 17.0 | 1702 | 19 | 1702.0 | 19.0 | 1.2 | Single Age |
| 15HP39_4 | 147 | 1.55 | 1.23800 | 0.03100 | 0.13300 | 0.00310 | 0.48822 | 818.0 | 15.0 | 804.0 | 18.0 | 865 | 49 | 804.0 | 18.0 | 1.7 | Single Age |
| 15HP39_5 | 370 | 4.19 | 1.62700 | 0.02000 | 0.16410 | 0.00180 | 0.45671 | 981.0 | 7.8 | 979.2 | 9.9 | 984 | 24 | 984.0 | 24.0 | 0.5 | Single Age |
| 15HP39_6 | 327 | 2.54 | 1.48300 | 0.02300 | 0.15320 | 0.00220 | 0.58050 | 922.7 | 9.3 | 918.0 | 12.0 | 925 | 31 | 925.0 | 31.0 | 0.8 | Single Age |
| 15HP39_7 | 496 | 1.69 | 1.54700 | 0.02100 | 0.15790 | 0.00180 | 0.68856 | 948.6 | 8.5 | 945.0 | 10.0 | 950 | 24 | 950.0 | 24.0 | 0.5 | Single Age |
| 15HP39_8 | 732 | 23.87 | 1.50000 | 0.02100 | 0.15350 | 0.00210 | 0.65127 | 929.9 | 8.6 | 921.0 | 12.0 | 964 | 21 | 964.0 | 21.0 | 4.5 | Single Age |
| 15HP39_9 | 82 | 1.67 | 1.73500 | 0.05600 | 0.17520 | 0.00550 | 0.25318 | 1027.0 | 23.0 | 1040.0 | 30.0 | 1033 | 88 | 1033.0 | 88.0 | 0.7 | Single Age |
| 15HP39_10 | 444 | 1.09 | 2.24000 | 0.04400 | 0.20390 | 0.00270 | 0.73668 | 1194.0 | 14.0 | 1196.0 | 14.0 | 1192 | 26 | 1192.0 | 26.0 | 0.3 | Single Age |
| 15HP39_11 | 881 | 2.09 | 1.04200 | 0.02500 | 0.10620 | 0.00220 | 0.74895 | 724.0 | 12.0 | 650.0 | 13.0 | 953 | 32 | DISC | DISC | 10.2 | Single Age |
| 15HP39_12 | 98.6 | 1.10 | 1.41100 | 0.04900 | 0.14990 | 0.00350 | 0.10654 | 897.0 | 22.0 | 900.0 | 20.0 | 880 | 92 | 880.0 | 92.0 | 2.3 | Rim |
| 15HP39_12 | 329 | 1.50 | 2.16400 | 0.04200 | 0.19880 | 0.00460 | 0.52712 | 1169.0 | 14.0 | 1169.0 | 25.0 | 1163 | 37 | 1163.0 | 37.0 | 0.5 | Core |
| 15HP39_13 | 81 | 0.86 | 2.01200 | 0.06200 | 0.17260 | 0.00450 | 0.51403 | 1118.0 | 21.0 | 1026.0 | 25.0 | 1298 | 54 | 1298.0 | 54.0 | 21.0 | Single Age |
| 15HP39_14 | 233 | 1.71 | - | - | - | - | - | - | - | - | - | 995 | 34 | - | - | - | Single Age |
| 15HP39_15 | 180 | 205.00 | 2.34400 | 0.04000 | 0.20940 | 0.00280 | 0.32384 | 1225.0 | 12.0 | 1228.0 | 15.0 | 1217 | 40 | 1217.0 | 40.0 | 0.9 | Single Age |
| 15HP39_16 | 1952 | 125.00 | 0.02950 | 0.00460 | 0.00410 | 0.00029 | 0.74239 | 29.5 | 4.5 | 26.4 | 1.8 | 260 | 250 | DISC | DISC | 10.5 | Rim |
| 15HP39_16 | 242.1 | 0.90 | 3.89300 | 0.09700 | 0.28330 | 0.00760 | 0.40409 | 1611.0 | 20.0 | 1607.0 | 38.0 | 1625 | 56 | 1625.0 | 56.0 | 1.1 | Core |
| 15HP39_17 | 42.2 | 0.28 | 1.66400 | 0.08400 | 0.14650 | 0.00500 | 0.25940 | 1005.0 | 32.0 | 881.0 | 28.0 | 1273 | 86 | DISC | DISC | 30.8 | Single Age |
| 15HP39_18 | 53.2 | 0.68 | 16.95000 | 0.41000 | 0.54800 | 0.01300 | 0.79008 | 2932.0 | 23.0 | 2814.0 | 52.0 | 3022 | 26 | 3022.0 | 26.0 | 6.9 | Single Age |
| 15HP39_19 | 331 | 5.01 | 1.95200 | 0.02600 | 0.18420 | 0.00180 | 0.39107 | 1099.6 | 8.8 | 1089.8 | 9.6 | 1099 | 26 | 1099.0 | 26.0 | 0.8 | Single Age |
| 15HP39_20 | 311 | 0.76 | 25.06000 | 0.45000 | 0.66000 | 0.02000 | 0.81576 | 3310.0 | 18.0 | 3265.0 | 77.0 | 3350 | 27 | 3350.0 | 27.0 | 2.5 | Single Age |
| 15HP39_21 | 182.7 | 1.21 | 13.16000 | 0.16000 | 0.51950 | 0.00690 | 0.67763 | 2690.0 | 11.0 | 2696.0 | 29.0 | 2690 | 19 | 2690.0 | 19.0 | 0.2 | Single Age |
| 15HP39_22 | 217 | 0.99 | 4.19800 | 0.05300 | 0.28090 | 0.00400 | 0.55948 | 1673.0 | 10.0 | 1596.0 | 20.0 | 1770 | 24 | 1770.0 | 24.0 | 9.8 | Single Age |
| 15HP39_23 | 989 | 3.16 | 1.69400 | 0.04600 | 0.16930 | 0.00430 | 0.66820 | 1005.0 | 17.0 | 1008.0 | 24.0 | 1000 | 53 | 1000.0 | 53.0 | 0.8 | Single Age |
| 15HP39_24 | 37.3 | 0.41 | 5.04000 | 0.21000 | 0.22740 | 0.00930 | 0.68709 | 1821.0 | 36.0 | 1319.0 | 49.0 | 2468 | 58 | DISC | DISC | 46.6 | Single Age |
| 15HP39_25 | 146.6 | 1.32 | 1.70900 | 0.03900 | 0.16930 | 0.00310 | 0.43637 | 1012.0 | 14.0 | 1008.0 | 17.0 | 1032 | 40 | 1032.0 | 40.0 | 2.3 | Single Age |
| 15HP39_26 | 460 | 2.80 | 1.31800 | 0.02000 | 0.14260 | 0.00170 | 0.62754 | 852.6 | 8.9 | 859.1 | 9.9 | 822 | 24 | 822.0 | 9.9 | 0.8 | Single Age |
| 15HP39_27 | 645 | 1.40 | - | - | - | - | - | - | - | - | - | 957 | 25 | - | - | - | Single Age |
| 15HP39_28 | 84.5 | 41.00 | 1.61800 | 0.07900 | 0.16970 | 0.00610 | 0.24087 | 986.0 | 36.0 | 1010.0 | 34.0 | 930 | 130 | 930.0 | 130.0 | 8.6 | Rim |
| 15HP39_28 | 318 | 0.76 | 9.70000 | 0.21000 | 0.44000 | 0.00890 | 0.73404 | 2409.0 | 21.0 | 2358.0 | 42.0 | 2447 | 23 | 2447.0 | 23.0 | 3.6 | Core |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP39_29 | 137 | 1.53 | 1.73400 | 0.03500 | 0.17310 | 0.00230 | 0.33214 | 1021.0 | 13.0 | 1029.0 | 13.0 | 984 | 40 | 984.0 | 40.0 | 4.6 | Single Age |
| 15HP39_30 | 8.17 | 0.63 | 10.42000 | 0.41000 | 0.45600 | 0.01800 | 0.27892 | 2470.0 | 39.0 | 2415.0 | 80.0 | 2496 | 96 | 2496.0 | 96.0 | 3.2 | Single Age |
| 15HP39_31 | 171 | 1.18 | 1.15800 | 0.02200 | 0.12830 | 0.00170 | 0.14172 | 780.0 | 10.0 | 778.3 | 9.5 | 786 | 47 | 778.3 | 9.5 | 0.2 | Single Age |
| 15HP39_32 | 448 | 1.73 | 1.83800 | 0.02500 | 0.17540 | 0.00210 | 0.62999 | 1059.9 | 8.7 | 1042.0 | 12.0 | 1080 | 25 | 1080.0 | 25.0 | 3.5 | Single Age |
| 15HP39_33 | 636 | 3.74 | 1.35000 | 0.01600 | 0.14320 | 0.00170 | 0.60438 | 866.9 | 6.9 | 862.8 | 9.5 | 880 | 22 | 880.0 | 22.0 | 2.0 | Single Age |
| 15HP39_34 | 444 | 0.96 | 9.75700 | 0.09900 | 0.44550 | 0.00470 | 0.49688 | 2412.9 | 9.7 | 2375.0 | 21.0 | 2443 | 16 | 2443.0 | 16.0 | 2.8 | Single Age |
| 15HP39_35 | 121.3 | 1.44 | 2.40400 | 0.04500 | 0.20330 | 0.00310 | 0.24621 | 1242.0 | 14.0 | 1193.0 | 17.0 | 1308 | 39 | 1308.0 | 39.0 | 8.8 | Single Age |
| 15HP39_36 | 166 | 1.65 | 1.44900 | 0.02900 | 0.15070 | 0.00250 | 0.27462 | 908.0 | 12.0 | 904.0 | 14.0 | 920 | 45 | 920.0 | 45.0 | 1.7 | Single Age |
| 15HP39_37 | 154.9 | 0.76 | 10.90000 | 0.17000 | 0.48570 | 0.00850 | 0.57423 | 2513.0 | 14.0 | 2555.0 | 38.0 | 2471 | 25 | 2471.0 | 25.0 | 3.4 | Single Age |
| 15HP39_38 | 140.8 | 0.52 | 0.63600 | 0.01900 | 0.08010 | 0.00180 | 0.19558 | 502.0 | 11.0 | 496.0 | 11.0 | 525 | 71 | 496.0 | 11.0 | 1.2 | Single Age |
| 15HP39_39 | 379 | 1.92 | 9.67000 | 0.35000 | 0.44100 | 0.02000 | 0.86333 | 2401.0 | 34.0 | 2354.0 | 89.0 | 2419 | 38 | 2419.0 | 38.0 | 2.7 | Single Age |
| 15HP39_40 | 638 | 3.93 | 4.44600 | 0.04900 | 0.30170 | 0.00370 | 0.51880 | 1722.1 | 9.6 | 1699.0 | 18.0 | 1735 | 22 | 1735.0 | 22.0 | 2.1 | Single Age |
| 15HP39_41 | 456 | 6.51 | 12.86000 | 0.15000 | 0.51780 | 0.00610 | 0.79493 | 2670.0 | 11.0 | 2689.0 | 26.0 | 2636 | 12 | 2636.0 | 12.0 | 2.0 | Single Age |
| 15HP39_42 | 340 | 9.60 | 3.84100 | 0.09300 | 0.28140 | 0.00660 | 0.75808 | 1600.0 | 19.0 | 1598.0 | 33.0 | 1587 | 24 | 1587.0 | 24.0 | 0.7 | Single Age |
| 15HP39_43 | 489 | 1.38 | 1.45800 | 0.01700 | 0.15040 | 0.00160 | 0.33295 | 913.8 | 6.9 | 903.2 | 9.0 | 914 | 28 | 914.0 | 28.0 | 1.2 | Single Age |
| 15HP39_44 | 121.8 | 1.57 | 1.35700 | 0.03500 | 0.13940 | 0.00250 | 0.33876 | 870.0 | 15.0 | 841.0 | 14.0 | 936 | 48 | 841.0 | 14.0 | 3.3 | Single Age |
| 15HP39_45 | 575 | 3.93 | - | - | - | - | - | - | - | - | - | 511 | 36 | - | - | - | Single Age |
| 15HP39_46 | 643 | 2.59 | 1.60900 | 0.01700 | 0.16150 | 0.00190 | 0.71674 | 973.3 | 6.8 | 965.0 | 11.0 | 972 | 18 | 972.0 | 18.0 | 0.7 | Single Age |
| 15HP39_47 | 72.4 | 0.72 | 3.68200 | 0.07600 | 0.27350 | 0.00440 | 0.48809 | 1569.0 | 17.0 | 1561.0 | 23.0 | 1580 | 34 | 1580.0 | 34.0 | 1.2 | Single Age |
| 15HP39_48 | 314 | 1.97 | 0.81900 | 0.01600 | 0.09860 | 0.00140 | 0.58541 | 609.3 | 8.9 | 606.3 | 8.4 | 619 | 40 | 606.3 | 8.4 | 0.5 | Single Age |
| 15HP39_49 | 398 | 2.53 | 1.88000 | 0.03400 | 0.17980 | 0.00240 | 0.74831 | 1073.0 | 12.0 | 1066.0 | 13.0 | 1084 | 24 | 1084.0 | 24.0 | 1.7 | Single Age |
| 15HP39_50 | 125.6 | 0.89 | 1.60100 | 0.04300 | 0.14690 | 0.00340 | 0.43937 | 969.0 | 17.0 | 883.0 | 19.0 | 1166 | 54 | 1166.0 | 54.0 | 24.3 | Single Age |
| 15HP39_51 | 440 | 4.35 | 3.30400 | 0.03700 | 0.24560 | 0.00310 | 0.70620 | 1481.5 | 8.7 | 1415.0 | 16.0 | 1562 | 17 | 1562.0 | 17.0 | 9.4 | Single Age |
| 15HP39_52 | 268 | 2.15 | 1.61300 | 0.02700 | 0.16300 | 0.00240 | 0.51607 | 976.0 | 10.0 | 973.0 | 13.0 | 1004 | 29 | 1004.0 | 29.0 | 3.1 | Single Age |
| 15HP39_53 | 291 | 1.85 | 1.48500 | 0.03200 | 0.14450 | 0.00210 | 0.62419 | 923.0 | 13.0 | 870.0 | 12.0 | 1046 | 33 | 1046.0 | 33.0 | 16.8 | Single Age |
| 15HP39_54 | 259 | 0.67 | 1.63100 | 0.02800 | 0.16390 | 0.00340 | 0.77278 | 981.0 | 11.0 | 978.0 | 19.0 | 973 | 28 | 973.0 | 28.0 | 0.5 | Single Age |
| 15HP39_55 | 1439 | 4.32 | 9.88000 | 0.12000 | 0.44840 | 0.00640 | 0.61797 | 2423.0 | 11.0 | 2388.0 | 28.0 | 2454 | 16 | 2454.0 | 16.0 | 2.7 | Single Age |
| 15HP39_56 | 60.2 | 0.78 | 12.55000 | 0.47000 | 0.49800 | 0.02000 | 0.73593 | 2653.0 | 31.0 | 2601.0 | 84.0 | 2670 | 46 | 2670.0 | 46.0 | 2.6 | Single Age |
| 15HP39_57 | 809 | 5.60 | 4.91000 | 0.08300 | 0.31690 | 0.00520 | 0.78550 | 1803.0 | 14.0 | 1774.0 | 25.0 | 1826 | 19 | 1826.0 | 19.0 | 2.8 | Single Age |
| 15HP39_58 | 559 | 1.51 | - | - | - | - | - | - | - | - | - | 2530 | 13 | - | - | - | Single Age |
| 15HP39_59 | 85.9 | 0.81 | 1.52500 | 0.03800 | 0.15310 | 0.00310 | 0.26349 | 940.0 | 16.0 | 918.0 | 17.0 | 984 | 53 | 984.0 | 53.0 | 6.7 | Single Age |
| 15HP39_60 | 49.1 | 0.79 | 1.22400 | 0.05100 | 0.13130 | 0.00290 | 0.07076 | 807.0 | 24.0 | 795.0 | 17.0 | 816 | 97 | 795.0 | 17.0 | 1.5 | Single Age |
| 15HP39_61 | 671 | 5.53 | 3.39400 | 0.06800 | 0.25910 | 0.00470 | 0.59582 | 1502.0 | 16.0 | 1485.0 | 24.0 | 1519 | 32 | 1519.0 | 32.0 | 2.2 | Single Age |
| 15HP39_62 | 183 | 3.72 | 11.25000 | 0.32000 | 0.46970 | 0.00930 | 0.77864 | 2541.0 | 26.0 | 2481.0 | 41.0 | 2597 | 30 | 2597.0 | 30.0 | 4.5 | Single Age |
| 15HP39_63 | 397 | 1.82 | 4.75000 | 0.13000 | 0.32130 | 0.00920 | 0.76385 | 1780.0 | 21.0 | 1795.0 | 45.0 | 1753 | 32 | 1753.0 | 32.0 | 2.4 | Single Age |
| 15HP39_64 | 1198 | 198.00 | 1.59300 | 0.01400 | 0.15860 | 0.00150 | 0.52578 | 967.3 | 5.5 | 948.8 | 8.6 | 996 | 18 | 996.0 | 18.0 | 4.7 | Single Age |
| 15HP39_65 | 206 | 2.51 | 5.15100 | 0.05400 | 0.33090 | 0.00370 | 0.62595 | 1843.8 | 9.0 | 1842.0 | 18.0 | 1837 | 17 | 1837.0 | 17.0 | 0.3 | Single Age |
| 15HP39_66 | 128 | 1.18 | 5.17900 | 0.09100 | 0.33500 | 0.00480 | 0.49924 | 1847.0 | 15.0 | 1865.0 | 23.0 | 1795 | 29 | 1795.0 | 29.0 | 3.9 | Single Age |
| 15HP39_67 | 69 | 0.48 | 4.30000 | 0.12000 | 0.30120 | 0.00720 | 0.45659 | 1689.0 | 24.0 | 1696.0 | 36.0 | 1662 | 49 | 1662.0 | 49.0 | 2.0 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP39_68 | 52.6 | 0.64 | 0.67200 | 0.02900 | 0.08160 | 0.00240 | 0.01662 | 523.0 | 18.0 | 505.0 | 15.0 | 540 | 110 | 505.0 | 15.0 | 3.4 | Single Age |
| 15HP39_69 | 130 | 1.43 | 1.55000 | 0.03000 | 0.15900 | 0.00240 | 0.29841 | 949.0 | 12.0 | 951.0 | 14.0 | 932 | 43 | 932.0 | 43.0 | 2.0 | Single Age |
| 15HP39_70 | 481 | 1.42 | 4.31400 | 0.04000 | 0.29520 | 0.00350 | 0.50712 | 1695.6 | 7.7 | 1667.0 | 17.0 | 1720 | 19 | 1720.0 | 19.0 | 3.1 | Single Age |
| 15HP39_71 | 139.5 | 1.17 | 10.81000 | 0.14000 | 0.46780 | 0.00730 | 0.56029 | 2508.0 | 13.0 | 2473.0 | 32.0 | 2527 | 21 | 2527.0 | 21.0 | 2.1 | Single Age |
| 15HP39_72 | 1070 | 6.49 | 1.51900 | 0.02200 | 0.15750 | 0.00270 | 0.33918 | 937.7 | 9.0 | 942.0 | 15.0 | 937 | 33 | 937.0 | 33.0 | 0.5 | Rim |
| 15HP39_72 | 476 | 4.31 | 2.15200 | 0.05800 | 0.19930 | 0.00530 | 0.74025 | 1165.0 | 19.0 | 1171.0 | 29.0 | 1149 | 41 | 1149.0 | 41.0 | 1.9 | Core |
| 15HP39_73 | 463 | 3.94 | 1.57500 | 0.02200 | 0.16380 | 0.00200 | 0.49993 | 959.7 | 8.6 | 978.0 | 11.0 | 928 | 26 | 928.0 | 26.0 | 5.4 | Single Age |
| 15HP39_74 | 1053 | 1.79 | 1.79100 | 0.03000 | 0.16660 | 0.00290 | 0.75531 | 1042.0 | 11.0 | 993.0 | 16.0 | 1133 | 25 | 1133.0 | 25.0 | 12.4 | Single Age |
| 15HP39_75 | 238 | 1.74 | 10.68000 | 0.13000 | 0.47100 | 0.00680 | 0.71439 | 2496.0 | 11.0 | 2487.0 | 30.0 | 2493 | 15 | 2493.0 | 15.0 | 0.2 | Single Age |
| 15HP39_76 | 617 | 1.45 | 1.18800 | 0.01900 | 0.13040 | 0.00180 | 0.50734 | 795.7 | 8.5 | 790.0 | 10.0 | 797 | 27 | 790.0 | 10.0 | 0.7 | Single Age |
| 15HP39_77 | 243 | 1.30 | 1.61600 | 0.02800 | 0.16220 | 0.00210 | 0.43208 | 975.0 | 11.0 | 969.0 | 12.0 | 990 | 32 | 990.0 | 32.0 | 2.1 | Single Age |
| 15HP39_78 | 596 | 6.40 | 5.39100 | 0.08300 | 0.33680 | 0.00580 | 0.60798 | 1883.0 | 13.0 | 1871.0 | 28.0 | 1877 | 27 | 1877.0 | 27.0 | 0.3 | Single Age |
| 15HP39_79 | 119.6 | 0.91 | 10.77000 | 0.16000 | 0.46870 | 0.00860 | 0.52519 | 2502.0 | 14.0 | 2477.0 | 38.0 | 2527 | 24 | 2527.0 | 24.0 | 2.0 | Single Age |
| 15HP39_80 | 130 | 0.92 | 1.59500 | 0.03100 | 0.16040 | 0.00250 | 0.39673 | 967.0 | 12.0 | 958.0 | 14.0 | 981 | 40 | 981.0 | 40.0 | 2.3 | Single Age |
| 15HP39_81 | 713 | 3.43 | 1.28000 | 0.04700 | 0.13310 | 0.00440 | 0.90053 | 841.0 | 18.0 | 805.0 | 25.0 | 959 | 40 | 805.0 | 25.0 | 4.3 | Single Age |
| 15HP39_82 | 231.3 | 1.82 | 3.73000 | 0.12000 | 0.27630 | 0.00870 | 0.57334 | 1575.0 | 27.0 | 1572.0 | 44.0 | 1582 | 57 | 1582.0 | 57.0 | 0.6 | Single Age |
| 15HP39_83 | 188 | 186.00 | 0.83500 | 0.08200 | 0.10610 | 0.00750 | 0.43850 | 612.0 | 45.0 | 650.0 | 43.0 | 490 | 150 | 650.0 | 43.0 | 6.2 | Rim |
| 15HP39_83 | 56.6 | 3.09 | 1.84400 | 0.07100 | 0.17780 | 0.00450 | 0.24203 | 1062.0 | 27.0 | 1054.0 | 24.0 | 1068 | 90 | 1068.0 | 90.0 | 1.3 | Core |
| 15HP39_84 | 226 | 5.89 | 0.55500 | 0.02300 | 0.06460 | 0.00240 | 0.61369 | 451.0 | 15.0 | 403.0 | 14.0 | 637 | 71 | DISC | DISC | 10.6 | Single Age |
| 15HP39_85 | 211.1 | 1.02 | 6.54300 | 0.08100 | 0.37520 | 0.00570 | 0.51202 | 2051.0 | 11.0 | 2053.0 | 27.0 | 2049 | 25 | 2049.0 | 25.0 | 0.2 | Single Age |
| 15HP39_86 | 149.2 | 0.97 | 9.59000 | 0.20000 | 0.43620 | 0.00750 | 0.76999 | 2395.0 | 20.0 | 2333.0 | 34.0 | 2472 | 25 | 2472.0 | 25.0 | 5.6 | Single Age |
| 15HP39_87 | 279 | 4.67 | 14.14000 | 0.13000 | 0.53120 | 0.00510 | 0.69428 | 2759.4 | 8.3 | 2746.0 | 21.0 | 2762 | 12 | 2762.0 | 12.0 | 0.6 | Single Age |
| 15HP39_88 | 217 | 1.15 | 1.48500 | 0.03200 | 0.15460 | 0.00270 | 0.71003 | 922.0 | 13.0 | 926.0 | 15.0 | 926 | 34 | 926.0 | 34.0 | 0.0 | Single Age |
| 15HP39_89 | 507 | 6.73 | 2.36400 | 0.03400 | 0.20690 | 0.00290 | 0.51754 | 1233.2 | 9.8 | 1212.0 | 15.0 | 1254 | 27 | 1254.0 | 27.0 | 3.3 | Single Age |
| 15HP39_90 | 128 | 1.28 | 1.68700 | 0.03600 | 0.16900 | 0.00250 | 0.52028 | 1004.0 | 14.0 | 1006.0 | 14.0 | 995 | 35 | 995.0 | 35.0 | 1.1 | Single Age |
| 15HP39_91 | 116.4 | 0.28 | 0.68500 | 0.01900 | 0.08610 | 0.00170 | 0.08368 | 530.0 | 11.0 | 532.0 | 10.0 | 481 | 67 | 532.0 | 10.0 | 0.4 | Single Age |
| 15HP39_92 | 261 | 3.40 | 1.57100 | 0.03800 | 0.16150 | 0.00290 | 0.65802 | 958.0 | 15.0 | 965.0 | 16.0 | 954 | 36 | 954.0 | 36.0 | 1.2 | Single Age |
| 15HP39_93 | 206.6 | 0.79 | 7.40000 | 0.11000 | 0.37620 | 0.00600 | 0.57164 | 2161.0 | 13.0 | 2058.0 | 28.0 | 2270 | 25 | 2270.0 | 25.0 | 9.3 | Single Age |
| 15HP39_94 | 259 | 2.07 | 1.33800 | 0.03200 | 0.14240 | 0.00260 | 0.60528 | 862.0 | 14.0 | 858.0 | 15.0 | 878 | 40 | 878.0 | 40.0 | 2.3 | Single Age |
| 15HP39_95 | 151.6 | 1.75 | 9.93000 | 0.16000 | 0.45120 | 0.00820 | 0.49122 | 2428.0 | 15.0 | 2400.0 | 37.0 | 2457 | 30 | 2457.0 | 30.0 | 2.3 | Single Age |
| 15HP39_96 | 158 | 1.41 | 1.17700 | 0.02400 | 0.13270 | 0.00210 | 0.36470 | 790.0 | 12.0 | 803.0 | 12.0 | 750 | 44 | 803.0 | 12.0 | 1.6 | Single Age |
| 15HP39_97 | 61.2 | 1.20 | 14.26000 | 0.31000 | 0.53100 | 0.01600 | 0.58778 | 2766.0 | 20.0 | 2745.0 | 69.0 | 2773 | 43 | 2773.0 | 43.0 | 1.0 | Single Age |
| 15HP39_98 | 54 | 1.97 | 1.68100 | 0.05100 | 0.16390 | 0.00370 | 0.19946 | 999.0 | 19.0 | 978.0 | 21.0 | 1059 | 71 | 1059.0 | 71.0 | 7.6 | Single Age |
| 15HP39_99 | 148.4 | 1.28 | 2.15900 | 0.03600 | 0.19770 | 0.00310 | 0.76208 | 1167.0 | 12.0 | 1162.0 | 17.0 | 1186 | 35 | 1186.0 | 35.0 | 2.0 | Single Age |
| 15HP39_100 | 159 | 1.21 | 4.79300 | 0.05900 | 0.31920 | 0.00330 | 0.65880 | 1783.0 | 10.0 | 1785.0 | 16.0 | 1775 | 17 | 1775.0 | 17.0 | 0.6 | Single Age |
| 15HP39_101 | 436 | 1.33 | - | - | - | - | - | - | - | - | - | 2586 | 12 | - | - | - | Single Age |
| 15HP39_102 | 160.6 | 1.63 | 1.46900 | 0.02700 | 0.15210 | 0.00220 | 0.30982 | 916.0 | 11.0 | 913.0 | 12.0 | 910 | 40 | 910.0 | 40.0 | 0.3 | Single Age |
| 15HP39_103 | 730 | 0.62 | 1.31800 | 0.01900 | 0.14220 | 0.00170 | 0.66527 | 853.8 | 8.3 | 856.8 | 9.6 | 840 | 22 | 840.0 | 9.6 | 0.4 | Single Age |
| 15HP39_104 | 128 | 1.20 | 1.12400 | 0.02700 | 0.12500 | 0.00220 | 0.20856 | 767.0 | 13.0 | 759.0 | 13.0 | 764 | 54 | 759.0 | 13.0 | 1.0 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP39_105 | 1321 | 8.93 | 1.53000 | 0.01400 | 0.15920 | 0.00160 | 0.65668 | 943.2 | 5.7 | 952.3 | 9.0 | 916 | 16 | 916.0 | 16.0 | 4.0 | Single Age |
| 15HP39_106 | 344 | 6.15 | 4.82700 | 0.05800 | 0.32290 | 0.00470 | 0.66106 | 1790.1 | 9.8 | 1803.0 | 23.0 | 1787 | 19 | 1787.0 | 19.0 | 0.9 | Single Age |
| 15HP39_107 | 569 | 0.75 | 1.03300 | 0.01900 | 0.10630 | 0.00200 | 0.73506 | 719.8 | 9.5 | 651.0 | 11.0 | 941 | 28 | 651.0 | 11.0 | 9.6 | Single Age |
| 15HP39_108 | 569 | 3.83 | 11.33000 | 0.14000 | 0.50620 | 0.00770 | 0.83231 | 2549.0 | 11.0 | 2647.0 | 33.0 | 2469 | 15 | 2469.0 | 15.0 | 7.2 | Single Age |
| 15HP39_109 | 78.6 | 0.53 | 3.65400 | 0.07600 | 0.26380 | 0.00470 | 0.49505 | 1559.0 | 17.0 | 1509.0 | 24.0 | 1627 | 36 | 1627.0 | 36.0 | 7.3 | Single Age |
| 15HP39_110 | 500 | 19.90 | 2.88000 | 0.07500 | 0.23390 | 0.00570 | 0.82265 | 1378.0 | 19.0 | 1359.0 | 31.0 | 1441 | 31 | 1441.0 | 31.0 | 5.7 | Single Age |
| 15HP39_111 | 67.9 | 0.54 | 0.64900 | 0.03000 | 0.08100 | 0.00230 | 0.27328 | 509.0 | 18.0 | 502.0 | 14.0 | 592 | 96 | 502.0 | 14.0 | 1.4 | Single Age |
| 15HP39_112 | 281 | 0.75 | 12.52000 | 0.48000 | 0.50600 | 0.01900 | 0.94223 | 2639.0 | 37.0 | 2636.0 | 84.0 | 2645 | 23 | 2645.0 | 23.0 | 0.3 | Single Age |
| 15HP39_113 | 305 | 2.42 | 10.12000 | 0.15000 | 0.46140 | 0.00660 | 0.65373 | 2444.0 | 14.0 | 2445.0 | 29.0 | 2453 | 20 | 2453.0 | 20.0 | 0.3 | Single Age |
| 15HP39_114 | 421 | 0.99 | 1.72100 | 0.02500 | 0.17580 | 0.00240 | 0.50116 | 1015.6 | 9.4 | 1043.0 | 13.0 | 973 | 28 | 973.0 | 28.0 | 7.2 | Single Age |
| 15HP39_115 | 3270 | 7.08 | - | - | - | - | - | - | - | - | - | 884 | 27 | - | - | - | Single Age |
| 15HP39_116 | 224 | 1.83 | 1.56100 | 0.02500 | 0.16160 | 0.00190 | 0.37534 | 955.0 | 10.0 | 966.0 | 10.0 | 943 | 35 | 943.0 | 35.0 | 2.4 | Single Age |
| 15HP39_117 | 400 | 5.38 | 10.83000 | 0.20000 | 0.46940 | 0.00920 | 0.62118 | 2506.0 | 17.0 | 2479.0 | 40.0 | 2537 | 26 | 2537.0 | 26.0 | 2.3 | Single Age |
| 15HP39_118 | 198 | 1.00 | 1.33700 | 0.02700 | 0.14290 | 0.00220 | 0.28998 | 861.0 | 12.0 | 861.0 | 13.0 | 854 | 44 | 854.0 | 44.0 | 0.8 | Single Age |
| 15HP39_119 | 497 | 1.53 | 1.94200 | 0.03400 | 0.18430 | 0.00410 | 0.52682 | 1095.0 | 12.0 | 1090.0 | 22.0 | 1112 | 38 | 1112.0 | 38.0 | 2.0 | Single Age |
| 15HP39_120 | 845 | 1.62 | 0.63600 | 0.01600 | 0.07580 | 0.00210 | 0.57296 | 499.0 | 10.0 | 471.0 | 13.0 | 637 | 50 | 471.0 | 13.0 | 5.6 | Single Age |
| 15HP41_1 | 340 | 3.10 | 4.72700 | 0.06100 | 0.31900 | 0.00410 | 0.73841 | 1771.0 | 11.0 | 1789.0 | 20.0 | 1766 | 18 | 1766.0 | 18.0 | 1.3 | Single Age |
| 15HP41_2 | 330.4 | 0.72 | 5.12900 | 0.04900 | 0.32830 | 0.00310 | 0.63135 | 1842.4 | 7.9 | 1830.0 | 15.0 | 1875 | 13 | 1875.0 | 13.0 | 2.4 | Single Age |
| 15HP41_3 | 300 | 1.60 | 1.33000 | 0.02700 | 0.14490 | 0.00270 | 0.57332 | 858.0 | 12.0 | 872.0 | 15.0 | 828 | 40 | 828.0 | 15.0 | 1.6 | Single Age |
| 15HP41_4 | 301 | 1.22 | 1.40600 | 0.02400 | 0.15120 | 0.00190 | 0.12806 | 890.0 | 10.0 | 907.0 | 11.0 | 869 | 31 | 869.0 | 31.0 | 4.4 | Single Age |
| 15HP41_5 | 471 | 5.66 | 1.52800 | 0.03500 | 0.15540 | 0.00360 | 0.78345 | 941.0 | 14.0 | 931.0 | 20.0 | 964 | 32 | 964.0 | 32.0 | 3.4 | Single Age |
| 15HP41_6 | 548 | 1.85 | 1.61400 | 0.01900 | 0.16460 | 0.00170 | 0.51249 | 975.1 | 7.2 | 982.2 | 9.4 | 985 | 24 | 985.0 | 24.0 | 0.3 | Single Age |
| 15HP41_7 | 514 | 2.17 | 1.62300 | 0.03800 | 0.16460 | 0.00290 | 0.48608 | 979.0 | 15.0 | 982.0 | 16.0 | 969 | 43 | 969.0 | 43.0 | 1.3 | Single Age |
| 15HP41_8 | 107.2 | 0.60 | 1.19400 | 0.02500 | 0.13380 | 0.00200 | 0.24908 | 796.0 | 12.0 | 809.0 | 11.0 | 774 | 48 | 809.0 | 11.0 | 1.6 | Single Age |
| 15HP41_9 | 906 | 2.18 | 0.60470 | 0.00770 | 0.07814 | 0.00079 | 0.56579 | 480.0 | 4.9 | 485.0 | 4.7 | 469 | 24 | 485.0 | 4.7 | 1.0 | Single Age |
| 15HP41_10 | 187 | 0.44 | 10.84000 | 0.14000 | 0.48560 | 0.00650 | 0.46886 | 2509.0 | 12.0 | 2551.0 | 28.0 | 2481 | 20 | 2481.0 | 20.0 | 2.8 | Single Age |
| 15HP41_11 | 235 | 1.00 | 1.60400 | 0.08200 | 0.16620 | 0.00490 | 0.39545 | 990.0 | 27.0 | 990.0 | 27.0 | 1037 | 31 | 1037.0 | 31.0 | 4.5 | Rim |
| 15HP41_11 | 215.6 | 0.90 | 1.77900 | 0.03100 | 0.17500 | 0.00240 | 0.51257 | 1037.0 | 11.0 | 1039.0 | 13.0 | 1063 | 34 | 1063.0 | 34.0 | 2.3 | Core |
| 15HP41_12 | 550 | 1.19 | 1.69800 | 0.04400 | 0.15890 | 0.00490 | 0.84647 | 1007.0 | 17.0 | 951.0 | 27.0 | 1176 | 27 | 1176.0 | 27.0 | 19.1 | Single Age |
| 15HP41_13 | 351 | 1.36 | 5.33900 | 0.06700 | 0.33930 | 0.00430 | 0.72262 | 1874.0 | 11.0 | 1886.0 | 21.0 | 1878 | 16 | 1878.0 | 16.0 | 0.4 | Single Age |
| 15HP41_14 | 3190 | 31.40 | 0.60510 | 0.00750 | 0.07499 | 0.00089 | 0.58184 | 480.3 | 4.7 | 466.1 | 5.3 | 554 | 22 | 466.1 | 5.3 | 3.0 | Single Age |
| 15HP41_15 | 993 | 18.00 | 4.33500 | 0.04800 | 0.28460 | 0.00350 | 0.74123 | 1699.5 | 9.1 | 1614.0 | 18.0 | 1809 | 16 | 1809.0 | 16.0 | 10.8 | Single Age |
| 15HP41_16 | 201 | 1.24 | 1.33900 | 0.02500 | 0.14080 | 0.00210 | 0.55552 | 861.0 | 11.0 | 849.0 | 12.0 | 887 | 36 | 849.0 | 12.0 | 1.4 | Single Age |
| 15HP41_17 | 247 | 1.03 | 1.25400 | 0.04600 | 0.12550 | 0.00470 | 0.73773 | 823.0 | 21.0 | 766.0 | 28.0 | 985 | 51 | 766.0 | 28.0 | 6.9 | Single Age |
| 15HP41_18 | 317.3 | 4.21 | 1.17700 | 0.02100 | 0.11970 | 0.00160 | 0.32318 | 791.4 | 9.3 | 728.6 | 9.2 | 976 | 38 | 728.6 | 9.2 | 7.9 | Single Age |
| 15HP41_19 | 122 | 0.45 | 1.15700 | 0.02800 | 0.12050 | 0.00200 | 0.00932 | 779.0 | 13.0 | 733.0 | 11.0 | 898 | 52 | 733.0 | 11.0 | 5.9 | Single Age |
| 15HP41_20 | 400 | 2.63 | 1.44900 | 0.02000 | 0.14770 | 0.00190 | 0.60979 | 908.7 | 8.2 | 888.0 | 11.0 | 955 | 25 | 955.0 | 25.0 | 7.0 | Single Age |
| 15HP41_21 | 545 | 1.71 | 10.29000 | 0.11000 | 0.44970 | 0.00440 | 0.43972 | 2460.6 | 9.6 | 2394.0 | 20.0 | 2501 | 16 | 2501.0 | 16.0 | 4.3 | Single Age |
| 15HP41_22 | 261 | 1.78 | 1.74900 | 0.02400 | 0.17310 | 0.00240 | 0.54846 | 1027.3 | 9.1 | 1029.0 | 13.0 | 1003 | 29 | 1003.0 | 29.0 | 2.6 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP41_23 | 402 | 4.16 | 1.36800 | 0.02900 | 0.14330 | 0.00280 | 0.58877 | 874.0 | 12.0 | 863.0 | 16.0 | 885 | 37 | 885.0 | 37.0 | 2.5 | Single Age |
| 15HP41_24 | 79.4 | 1.14 | 1.42800 | 0.04100 | 0.14590 | 0.00300 | 0.37924 | 907.0 | 17.0 | 878.0 | 17.0 | 965 | 59 | 965.0 | 59.0 | 9.0 | Single Age |
| 15HP41_25 | 241 | 2.01 | 1.09200 | 0.02500 | 0.12210 | 0.00190 | 0.57690 | 753.0 | 12.0 | 743.0 | 11.0 | 779 | 36 | 743.0 | 11.0 | 1.3 | Single Age |
| 15HP41_26 | 3870 | 39.50 | 0.47600 | 0.03500 | 0.06240 | 0.00360 | 0.45811 | 392.0 | 25.0 | 390.0 | 22.0 | 530 | 33 | 390.0 | 22.0 | 0.5 | Single Age |
| 15HP41_27 | 393 | 5.60 | 10.12000 | 0.20000 | 0.45680 | 0.00970 | 0.84460 | 2445.0 | 19.0 | 2424.0 | 43.0 | 2457 | 20 | 2457.0 | 20.0 | 1.3 | Single Age |
| 15HP41_28 | 46.5 | 0.72 | 1.21300 | 0.03900 | 0.12730 | 0.00310 | 0.38158 | 804.0 | 18.0 | 772.0 | 18.0 | 892 | 65 | 772.0 | 18.0 | 4.0 | Single Age |
| 15HP41_29 | 339 | 6.86 | 1.61000 | 0.02200 | 0.16660 | 0.00240 | 0.45560 | 973.5 | 8.5 | 993.0 | 13.0 | 928 | 29 | 928.0 | 29.0 | 7.0 | Single Age |
| 15HP41_30 | 267 | 3.28 | 1.40000 | 0.02300 | 0.14780 | 0.00190 | 0.47975 | 890.2 | 9.6 | 890.0 | 11.0 | 880 | 30 | 880.0 | 30.0 | 1.1 | Single Age |
| 15HP41_31 | 511 | 8.51 | 1.27300 | 0.02200 | 0.13670 | 0.00170 | 0.61410 | 832.7 | 9.8 | 825.9 | 9.6 | 860 | 28 | 825.9 | 9.6 | 0.8 | Single Age |
| 15HP41_32 | 659 | 15.50 | 2.25100 | 0.03600 | 0.20410 | 0.00260 | 0.78124 | 1196.0 | 11.0 | 1197.0 | 14.0 | 1198 | 21 | 1198.0 | 21.0 | 0.1 | Single Age |
| 15HP41_33 | 866 | 6.58 | 1.72500 | 0.02300 | 0.17050 | 0.00200 | 0.24589 | 1017.3 | 8.7 | 1015.0 | 11.0 | 1017 | 19 | 1017.0 | 19.0 | 0.2 | Single Age |
| 15HP41_34 | 264.9 | 1.09 | 4.00300 | 0.07300 | 0.27800 | 0.00550 | 0.39161 | 1634.0 | 15.0 | 1581.0 | 28.0 | 1681 | 38 | 1681.0 | 38.0 | 5.9 | Single Age |
| 15HP41_35 | 957 | 0.69 | 3.34100 | 0.02900 | 0.26320 | 0.00260 | 0.64810 | 1490.3 | 6.8 | 1506.0 | 14.0 | 1477 | 13 | 1477.0 | 13.0 | 2.0 | Single Age |
| 15HP41_36 | 1661 | 16.40 | 0.58400 | 0.01900 | 0.07500 | 0.00240 | 0.31854 | 467.0 | 12.0 | 466.0 | 14.0 | 448 | 84 | 466.0 | 14.0 | 0.2 | Rim |
| 15HP41_36 | 369 | 4.95 | 0.84000 | 0.02900 | 0.10240 | 0.00410 | 0.73927 | 618.0 | 16.0 | 628.0 | 24.0 | 565 | 44 | 628.0 | 24.0 | 1.6 | Core |
| 15HP41_37 | 256 | 23.30 | 1.04000 | 0.12000 | 0.11730 | 0.00800 | 0.05859 | 718.0 | 61.0 | 714.0 | 46.0 | 700 | 210 | 714.0 | 46.0 | 0.6 | Rim |
| 15HP41_37 | 165.7 | 1.77 | 1.91700 | 0.05600 | 0.18640 | 0.00430 | 0.15020 | 1086.0 | 20.0 | 1102.0 | 23.0 | 1057 | 78 | 1057.0 | 78.0 | 4.3 | Core |
| 15HP41_38 | 399 | 2.39 | 1.68700 | 0.03000 | 0.16580 | 0.00310 | 0.44745 | 1002.0 | 12.0 | 989.0 | 17.0 | 1033 | 29 | 1033.0 | 29.0 | 4.3 | Single Age |
| 15HP41_39 | 1089 | 4.90 | 0.61870 | 0.00870 | 0.07918 | 0.00086 | 0.57929 | 488.8 | 5.4 | 491.2 | 5.2 | 489 | 27 | 491.2 | 5.2 | 0.5 | Single Age |
| 15HP41_40 | 168.9 | 1.73 | 1.35600 | 0.02700 | 0.14270 | 0.00260 | 0.05583 | 869.0 | 11.0 | 859.0 | 15.0 | 901 | 42 | 901.0 | 42.0 | 4.7 | Single Age |
| 15HP41_41 | 498 | 2.23 | 3.79000 | 0.12000 | 0.26380 | 0.00650 | 0.84917 | 1594.0 | 26.0 | 1509.0 | 33.0 | 1705 | 27 | 1705.0 | 27.0 | 11.5 | Single Age |
| 15HP41_42 | 476 | 3.07 | 1.47100 | 0.01700 | 0.15230 | 0.00160 | 0.40718 | 917.9 | 6.8 | 913.8 | 8.9 | 941 | 25 | 941.0 | 25.0 | 2.9 | Single Age |
| 15HP41_43 | 201 | 1.76 | 1.91500 | 0.03700 | 0.18650 | 0.00310 | 0.64727 | 1085.0 | 13.0 | 1102.0 | 17.0 | 1046 | 35 | 1046.0 | 35.0 | 5.4 | Single Age |
| 15HP41_44 | 40.3 | 0.78 | 1.20600 | 0.04800 | 0.12790 | 0.00320 | 0.03433 | 798.0 | 22.0 | 776.0 | 18.0 | 837 | 85 | 776.0 | 18.0 | 2.8 | Single Age |
| 15HP41_45 | 952 | 1.57 | 1.89800 | 0.02200 | 0.18300 | 0.00210 | 0.70847 | 1079.7 | 7.7 | 1083.0 | 12.0 | 1075 | 20 | 1075.0 | 20.0 | 0.7 | Single Age |
| 15HP41_46 | 320 | 1.80 | 1.67700 | 0.02400 | 0.16740 | 0.00210 | 0.54171 | 1000.3 | 9.3 | 997.0 | 12.0 | 983 | 26 | 983.0 | 26.0 | 1.4 | Single Age |
| 15HP41_47 | 217 | 0.94 | 1.45200 | 0.07900 | 0.14680 | 0.00630 | 0.77801 | 907.0 | 32.0 | 882.0 | 35.0 | 946 | 63 | 946.0 | 63.0 | 6.8 | Single Age |
| 15HP41_49 | 1087 | 491.00 | 1.62600 | 0.06700 | 0.16460 | 0.00880 | 0.48950 | 979.0 | 26.0 | 981.0 | 49.0 | 945 | 96 | 945.0 | 96.0 | 3.8 | Rim |
| 15HP41_49 | 302 | 4.40 | 4.55000 | 0.10000 | 0.32260 | 0.00740 | 0.77298 | 1739.0 | 18.0 | 1802.0 | 36.0 | 1643 | 31 | 1643.0 | 31.0 | 9.7 | Core |
| 15HP41_50 | 174 | 1.15 | 1.24200 | 0.02600 | 0.13510 | 0.00220 | 0.27453 | 820.0 | 12.0 | 817.0 | 12.0 | 804 | 48 | 817.0 | 12.0 | 0.4 | Single Age |
| 15HP41_51 | 182.2 | 1.58 | 1.53300 | 0.02800 | 0.15690 | 0.00210 | 0.34748 | 944.0 | 11.0 | 939.0 | 12.0 | 933 | 39 | 933.0 | 39.0 | 0.6 | Single Age |
| 15HP41_52 | 55.2 | 0.73 | 1.12600 | 0.03400 | 0.12410 | 0.00300 | 0.08028 | 763.0 | 16.0 | 754.0 | 17.0 | 786 | 74 | 754.0 | 17.0 | 1.2 | Single Age |
| 15HP41_53 | 215 | 1.34 | 3.79000 | 0.05300 | 0.28750 | 0.00400 | 0.52595 | 1591.0 | 11.0 | 1628.0 | 20.0 | 1547 | 23 | 1547.0 | 23.0 | 5.2 | Single Age |
| 15HP41_54 | 91.9 | 1.33 | 1.52100 | 0.03400 | 0.15160 | 0.00320 | 0.30033 | 940.0 | 13.0 | 909.0 | 18.0 | 983 | 49 | 983.0 | 49.0 | 7.5 | Single Age |
| 15HP41_55 | 900 | 8.90 | 1.61000 | 0.02200 | 0.16340 | 0.00170 | 0.28599 | 973.2 | 8.4 | 975.7 | 9.5 | 969 | 24 | 969.0 | 24.0 | 0.7 | Single Age |
| 15HP41_56 | 3870 | 62.80 | 0.03270 | 0.00230 | 0.00482 | 0.00015 | 0.36345 | 32.7 | 2.2 | 31.0 | 1.0 | 170 | 140 | 31.0 | 1.0 | 5.2 | Rim |
| 15HP41_56 | 2410 | 41.40 | 0.90700 | 0.06300 | 0.09040 | 0.00420 | 0.92380 | 653.0 | 34.0 | 558.0 | 25.0 | 997 | 66 | DISC | DISC | 14.5 | Core |
| 15HP41_57 | 179 | 1.05 | 1.43100 | 0.03200 | 0.15040 | 0.00240 | 0.53782 | 906.0 | 12.0 | 903.0 | 14.0 | 928 | 40 | 928.0 | 40.0 | 2.7 | Single Age |
| 15HP41_58 | 111 | 1.41 | 2.31400 | 0.05900 | 0.20180 | 0.00400 | 0.53925 | 1215.0 | 18.0 | 1184.0 | 21.0 | 1285 | 43 | 1285.0 | 43.0 | 7.9 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP41_59 | 535 | 3.15 | 11.57000 | 0.20000 | 0.48860 | 0.00700 | 0.72580 | 2571.0 | 16.0 | 2564.0 | 30.0 | 2571 | 17 | 2571.0 | 17.0 | 0.3 | Single Age |
| 15HP41_60 | 255 | 1.80 | 1.66000 | 0.02600 | 0.16620 | 0.00240 | 0.51666 | 995.0 | 10.0 | 991.0 | 13.0 | 1003 | 33 | 1003.0 | 33.0 | 1.2 | Single Age |
| 15HP41_61 | 473 | 2.91 | - | - | - | - | - | - | - | - | - | 1490 | 110 | - | - | - | Single Age |
| 15HP41_62 | 348 | 2.45 | 0.64400 | 0.01400 | 0.08060 | 0.00170 | 0.37282 | 505.1 | 8.5 | 499.3 | 9.9 | 563 | 49 | 499.3 | 9.9 | 1.1 | Single Age |
| 15HP41_63 | 920 | 4.68 | 0.97900 | 0.02200 | 0.11410 | 0.00280 | 0.73114 | 693.0 | 11.0 | 696.0 | 16.0 | 680 | 39 | 696.0 | 16.0 | 0.4 | Single Age |
| 15HP41_64 | 91.9 | 1.19 | 1.31000 | 0.04000 | 0.13790 | 0.00220 | 0.35522 | 847.0 | 17.0 | 833.0 | 13.0 | 884 | 64 | 833.0 | 13.0 | 1.7 | Single Age |
| 15HP41_65 | 99.5 | 0.44 | 0.66000 | 0.02300 | 0.07960 | 0.00160 | 0.15237 | 515.0 | 14.0 | 493.9 | 9.6 | 598 | 79 | 493.9 | 9.6 | 4.1 | Single Age |
| 15HP41_66 | 278.7 | 3.84 | 5.10000 | 0.13000 | 0.26210 | 0.00650 | 0.59092 | 1834.0 | 22.0 | 1506.0 | 32.0 | 2249 | 43 | DISC | DISC | 33.0 | Single Age |
| 15HP41_67 | 770 | 4.43 | 1.55800 | 0.03300 | 0.14830 | 0.00310 | 0.64493 | 953.0 | 13.0 | 891.0 | 18.0 | 1078 | 35 | 1078.0 | 35.0 | 17.3 | Single Age |
| 15HP41_68 | 226.9 | 1.79 | 0.97700 | 0.01800 | 0.11280 | 0.00190 | 0.53100 | 691.4 | 9.4 | 689.0 | 11.0 | 712 | 37 | 689.0 | 11.0 | 0.3 | Single Age |
| 15HP41_69 | 192 | 1.36 | 1.51200 | 0.03300 | 0.15470 | 0.00270 | 0.57692 | 934.0 | 13.0 | 927.0 | 15.0 | 963 | 37 | 963.0 | 37.0 | 3.7 | Single Age |
| 15HP41_70 | 496 | 1.20 | - | - | - | - | - | - | - | - | - | 920 | 28 | - | - | - | Single Age |
| 15HP41_71 | 259 | 1.24 | 2.02900 | 0.03800 | 0.19460 | 0.00340 | 0.11924 | 1124.0 | 13.0 | 1146.0 | 19.0 | 1070 | 34 | 1070.0 | 34.0 | 7.1 | Single Age |
| 15HP41_72 | 359.2 | 44.20 | 4.92400 | 0.07600 | 0.31480 | 0.00470 | 0.53859 | 1808.0 | 12.0 | 1763.0 | 23.0 | 1834 | 26 | 1834.0 | 26.0 | 3.9 | Single Age |
| 15HP41_73 | 1090 | 5.12 | 1.50000 | 0.15000 | 0.15340 | 0.00970 | 0.74674 | 927.0 | 58.0 | 919.0 | 55.0 | 1010 | 160 | 1010.0 | 160.0 | 9.0 | Rim |
| 15HP41_73 | 129.7 | 0.76 | 8.79000 | 0.28000 | 0.40000 | 0.01300 | 0.70956 | 2321.0 | 31.0 | 2170.0 | 59.0 | 2445 | 40 | 2445.0 | 40.0 | 11.2 | Core |
| 15HP41_74 | 407 | 1.14 | 1.75000 | 0.02800 | 0.17340 | 0.00310 | 0.52646 | 1028.0 | 9.9 | 1030.0 | 17.0 | 996 | 34 | 996.0 | 34.0 | 3.4 | Single Age |
| 15HP41_75 | 90.1 | 0.96 | 3.70000 | 0.10000 | 0.27510 | 0.00690 | 0.54981 | 1569.0 | 22.0 | 1566.0 | 35.0 | 1583 | 44 | 1583.0 | 44.0 | 1.1 | Single Age |
| 15HP41_76 | 303 | 3.01 | 0.64300 | 0.01600 | 0.07950 | 0.00130 | 0.32205 | 503.4 | 9.7 | 492.8 | 7.9 | 523 | 57 | 492.8 | 7.9 | 2.1 | Single Age |
| 15HP41_77 | 131 | 0.53 | 10.96000 | 0.14000 | 0.47830 | 0.00550 | 0.76624 | 2520.0 | 12.0 | 2519.0 | 24.0 | 2506 | 15 | 2506.0 | 15.0 | 0.5 | Single Age |
| 15HP41_78 | 166 | 1.42 | 0.80100 | 0.02700 | 0.08550 | 0.00170 | 0.25142 | 595.0 | 15.0 | 532.0 | 10.0 | 831 | 69 | DISC | DISC | 10.6 | Single Age |
| 15HP41_79 | 167 | 2.19 | 1.72000 | 0.04600 | 0.16190 | 0.00380 | 0.51170 | 1015.0 | 17.0 | 971.0 | 22.0 | 1126 | 54 | 1126.0 | 54.0 | 13.8 | Single Age |
| 15HP41_80 | 448 | 9.44 | 0.59200 | 0.01400 | 0.07490 | 0.00140 | 0.59627 | 471.6 | 9.0 | 465.3 | 8.6 | 489 | 39 | 465.3 | 8.6 | 1.3 | Single Age |
| 15HP41_81 | 232 | 1.69 | 1.42900 | 0.03400 | 0.14840 | 0.00390 | 0.62687 | 899.0 | 14.0 | 891.0 | 22.0 | 898 | 45 | 898.0 | 45.0 | 0.8 | Single Age |
| 15HP41_82 | 270 | 2.05 | 5.17200 | 0.04800 | 0.33090 | 0.00390 | 0.63248 | 1847.4 | 7.9 | 1842.0 | 19.0 | 1846 | 19 | 1846.0 | 19.0 | 0.2 | Single Age |
| 15HP41_83 | 380 | 3.90 | 0.78200 | 0.05200 | 0.09410 | 0.00280 | 0.43690 | 586.0 | 30.0 | 580.0 | 17.0 | 590 | 180 | 580.0 | 17.0 | 1.0 | Rim |
| 15HP41_83 | 102 | 0.87 | 1.57900 | 0.05600 | 0.15880 | 0.00340 | 0.33172 | 962.0 | 22.0 | 956.0 | 19.0 | 951 | 69 | 951.0 | 69.0 | 0.5 | Core |
| 15HP41_84 | 295 | 2.30 | 1.60400 | 0.02700 | 0.16040 | 0.00210 | 0.62405 | 971.0 | 11.0 | 960.0 | 12.0 | 981 | 28 | 981.0 | 28.0 | 2.1 | Single Age |
| 15HP41_85 | 340 | 3.63 | 10.61000 | 0.15000 | 0.46980 | 0.00690 | 0.75369 | 2490.0 | 13.0 | 2481.0 | 30.0 | 2479 | 17 | 2479.0 | 17.0 | 0.1 | Single Age |
| 15HP41_86 | 133 | 1.38 | 1.19100 | 0.04000 | 0.13230 | 0.00370 | 0.22913 | 796.0 | 19.0 | 801.0 | 21.0 | 794 | 89 | 801.0 | 21.0 | 0.6 | Single Age |
| 15HP41_87 | 419 | 178.00 | 0.03330 | 0.00500 | 0.00485 | 0.00030 | 0.16657 | 33.1 | 4.9 | 31.2 | 1.9 | 220 | 280 | 31.2 | 1.9 | 5.7 | Rim |
| 15HP41_87 | 135 | 0.36 | 1.45300 | 0.05900 | 0.15460 | 0.00530 | 0.48582 | 909.0 | 25.0 | 927.0 | 29.0 | 876 | 80 | 876.0 | 80.0 | 5.8 | Core |
| 15HP41_88 | 175 | 0.58 | 1.40600 | 0.04100 | 0.14040 | 0.00290 | 0.22432 | 890.0 | 17.0 | 847.0 | 16.0 | 990 | 62 | 847.0 | 16.0 | 4.8 | Single Age |
| 15HP41_89 | 683 | 6.19 | 1.66800 | 0.02300 | 0.16650 | 0.00200 | 0.16201 | 995.5 | 8.7 | 993.0 | 11.0 | 992 | 24 | 992.0 | 24.0 | 0.1 | Single Age |
| 15HP41_90 | 312.1 | 1.62 | 1.24200 | 0.03100 | 0.13310 | 0.00240 | 0.09392 | 822.0 | 13.0 | 805.0 | 14.0 | 863 | 68 | 805.0 | 14.0 | 2.1 | Single Age |
| 15HP41_91 | 392 | 4.09 | 1.42300 | 0.02400 | 0.15110 | 0.00230 | 0.46757 | 897.6 | 9.8 | 907.0 | 13.0 | 896 | 35 | 896.0 | 35.0 | 1.2 | Single Age |
| 15HP41_92 | 292 | 0.53 | 9.02000 | 0.26000 | 0.37400 | 0.01200 | 0.84411 | 2338.0 | 26.0 | 2044.0 | 55.0 | 2597 | 23 | 2597.0 | 23.0 | 21.3 | Single Age |
| 15HP41_93 | 88.8 | 0.64 | 3.79300 | 0.06500 | 0.27750 | 0.00460 | 0.38740 | 1592.0 | 14.0 | 1578.0 | 23.0 | 1646 | 37 | 1646.0 | 37.0 | 4.1 | Single Age |
| 15HP41_94 | 52.1 | 0.51 | 1.18300 | 0.03300 | 0.12970 | 0.00350 | 0.38588 | 797.0 | 15.0 | 786.0 | 20.0 | 795 | 64 | 786.0 | 20.0 | 1.4 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP41_95 | 590 | 7.20 | - | - | - | - | - | - | - | - | - | 859 | 32 | - | - | - | Single Age |
| 15HP41_96 | 349 | 1.35 | 1.44400 | 0.02400 | 0.15100 | 0.00240 | 0.62936 | 908.0 | 10.0 | 906.0 | 13.0 | 902 | 32 | 902.0 | 32.0 | 0.4 | Single Age |
| 15HP41_97 | 776 | 3.18 | 1.62500 | 0.01500 | 0.16480 | 0.00170 | 0.46068 | 980.6 | 6.0 | 983.2 | 9.3 | 952 | 21 | 952.0 | 21.0 | 3.3 | Single Age |
| 15HP41_98 | 125.9 | 1.38 | 1.35600 | 0.04300 | 0.14440 | 0.00380 | 0.54686 | 869.0 | 18.0 | 869.0 | 21.0 | 876 | 62 | 876.0 | 62.0 | 0.8 | Single Age |
| 15HP41_99 | 220 | 2.51 | 0.66300 | 0.02400 | 0.08000 | 0.00260 | 0.11879 | 515.0 | 15.0 | 496.0 | 15.0 | 630 | 120 | 496.0 | 15.0 | 3.7 | Single Age |
| 15HP41_100 | 815 | 50.00 | 0.07400 | 0.01200 | 0.00940 | 0.00130 | 0.67921 | 72.0 | 12.0 | 60.0 | 8.1 | 450 | 270 | DISC | DISC | 16.7 | Rim |
| 15HP41_100 | 59.7 | 0.82 | 1.43000 | 0.06500 | 0.15100 | 0.00450 | 0.17665 | 898.0 | 27.0 | 906.0 | 25.0 | 840 | 100 | 840.0 | 25.0 | 0.9 | Core |
| 15HP41_101 | 265 | 1.33 | 1.32900 | 0.02600 | 0.14370 | 0.00250 | 0.32002 | 859.0 | 11.0 | 865.0 | 14.0 | 828 | 43 | 828.0 | 14.0 | 0.7 | Single Age |
| 15HP41_102 | 51 | 0.81 | 10.82000 | 0.19000 | 0.47060 | 0.00770 | 0.56891 | 2505.0 | 17.0 | 2484.0 | 34.0 | 2496 | 27 | 2496.0 | 27.0 | 0.5 | Single Age |
| 15HP41_103 | 382 | 2.49 | 1.66400 | 0.03500 | 0.16090 | 0.00340 | 0.64023 | 995.0 | 13.0 | 961.0 | 19.0 | 1060 | 33 | 1060.0 | 33.0 | 9.3 | Single Age |
| 15HP41_104 | 272.4 | 1.75 | - | - | - | - | - | - | - | - | - | 2403 | 19 | - | - | - | Single Age |
| 15HP41_105 | 178.9 | 1.86 | 1.89300 | 0.06300 | 0.16720 | 0.00380 | 0.50203 | 1077.0 | 22.0 | 996.0 | 21.0 | 1197 | 62 | 1197.0 | 62.0 | 16.8 | Single Age |
| 15HP41_106 | 833 | 1.39 | 10.23000 | 0.25000 | 0.46300 | 0.01000 | 0.87971 | 2456.0 | 22.0 | 2453.0 | 45.0 | 2446 | 18 | 2446.0 | 18.0 | 0.3 | Single Age |
| 15HP41_107 | 188 | 1.43 | 4.56200 | 0.09900 | 0.31640 | 0.00830 | 0.67493 | 1742.0 | 19.0 | 1770.0 | 41.0 | 1645 | 40 | 1645.0 | 40.0 | 7.6 | Single Age |
| 15HP41_108 | 84.8 | 0.71 | 1.16300 | 0.03400 | 0.13150 | 0.00250 | 0.10238 | 786.0 | 16.0 | 796.0 | 14.0 | 720 | 70 | 796.0 | 14.0 | 1.3 | Single Age |
| 15HP41_109 | 52.3 | 3.10 | 1.52900 | 0.05300 | 0.15270 | 0.00370 | 0.07376 | 941.0 | 21.0 | 915.0 | 21.0 | 983 | 83 | 983.0 | 83.0 | 6.9 | Single Age |
| 15HP41_110 | 734 | 1.45 | 1.22600 | 0.04000 | 0.10980 | 0.00370 | 0.82651 | 810.0 | 18.0 | 671.0 | 22.0 | 1171 | 34 | DISC | DISC | 17.2 | Single Age |
| 15HP41_111 | 193 | 0.81 | 1.24800 | 0.06000 | 0.12560 | 0.00320 | 0.11871 | 820.0 | 27.0 | 762.0 | 18.0 | 980 | 120 | 762.0 | 18.0 | 7.1 | Single Age |
| 15HP41_112 | 564 | 1.14 | 9.63000 | 0.27000 | 0.42600 | 0.01000 | 0.75855 | 2398.0 | 26.0 | 2289.0 | 45.0 | 2493 | 32 | 2493.0 | 32.0 | 8.2 | Single Age |
| 15HP41_113 | 139.2 | 1.45 | 1.40600 | 0.03900 | 0.14230 | 0.00330 | 0.31888 | 890.0 | 16.0 | 857.0 | 19.0 | 943 | 56 | 943.0 | 56.0 | 9.1 | Single Age |
| 15HP41_114 | 159.3 | 2.01 | 1.67800 | 0.03100 | 0.16460 | 0.00290 | 0.43900 | 999.0 | 12.0 | 982.0 | 16.0 | 1006 | 40 | 1006.0 | 40.0 | 2.4 | Single Age |
| 15HP41_115 | 121.1 | 1.10 | 10.49000 | 0.23000 | 0.46000 | 0.01400 | 0.69070 | 2476.0 | 21.0 | 2438.0 | 61.0 | 2482 | 38 | 2482.0 | 38.0 | 1.8 | Single Age |
| 15HP41_116 | 119.3 | 1.32 | 1.91700 | 0.04500 | 0.17940 | 0.00290 | 0.25048 | 1087.0 | 15.0 | 1063.0 | 16.0 | 1111 | 48 | 1111.0 | 48.0 | 4.3 | Single Age |
| 15HP41_117 | 344 | 1.43 | 1.19100 | 0.01800 | 0.12900 | 0.00170 | 0.40063 | 797.0 | 8.5 | 783.0 | 10.0 | 794 | 37 | 783.0 | 10.0 | 1.8 | Single Age |
| 15HP41_118 | 269.1 | 0.40 | 0.72400 | 0.01600 | 0.08730 | 0.00130 | 0.52293 | 553.2 | 9.2 | 539.3 | 7.7 | 569 | 39 | 539.3 | 7.7 | 2.5 | Single Age |
| 15HP41_119 | 152 | 1.11 | 1.37600 | 0.02400 | 0.14470 | 0.00190 | 0.10259 | 878.0 | 10.0 | 871.0 | 11.0 | 868 | 42 | 868.0 | 42.0 | 0.3 | Single Age |
| 15HP41_120 | 288 | 0.88 | 1.42100 | 0.02000 | 0.15070 | 0.00220 | 0.34737 | 897.1 | 8.5 | 905.0 | 13.0 | 865 | 36 | 865.0 | 36.0 | 4.6 | Single Age |
| 15HP43_1 | 240 | 0.75 | 1.45300 | 0.03400 | 0.14970 | 0.00300 | 0.60700 | 911.0 | 14.0 | 899.0 | 17.0 | 943 | 37 | 943.0 | 37.0 | 4.7 | Single Age |
| 15HP43_2 | 299 | 4.54 | 1.41000 | 0.01900 | 0.15100 | 0.00180 | 0.18603 | 893.4 | 8.0 | 906.0 | 10.0 | 872 | 31 | 872.0 | 31.0 | 3.9 | Single Age |
| 15HP43_3 | 157.4 | 0.57 | 3.36600 | 0.07000 | 0.24890 | 0.00540 | 0.17632 | 1499.0 | 17.0 | 1432.0 | 28.0 | 1589 | 51 | 1589.0 | 51.0 | 9.9 | Single Age |
| 15HP43_4 | 195.7 | 1.26 | - | - | - | - | - | - | - | - | - | 1092 | 32 | - | - | - | Single Age |
| 15HP43_5 | 1543 | 18.15 | 2.95000 | 0.13000 | 0.21130 | 0.00720 | 0.70864 | 1387.0 | 33.0 | 1234.0 | 38.0 | 1649 | 42 | 1649.0 | 42.0 | 25.2 | Single Age |
| 15HP43_6 | 406 | 3.68 | 1.67000 | 0.02700 | 0.16780 | 0.00300 | 0.49342 | 996.0 | 10.0 | 1000.0 | 17.0 | 989 | 37 | 989.0 | 37.0 | 1.1 | Single Age |
| 15HP43_7 | 479 | 1.52 | 1.59000 | 0.03200 | 0.15970 | 0.00330 | 0.72421 | 967.0 | 13.0 | 954.0 | 18.0 | 992 | 31 | 992.0 | 31.0 | 3.8 | Single Age |
| 15HP43_8 | 0.0019 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| 15HP43_9 | 1073 | 10.36 | 5.43900 | 0.04300 | 0.34600 | 0.00390 | 0.71626 | 1890.8 | 6.7 | 1915.0 | 19.0 | 1861 | 14 | 1861.0 | 14.0 | 2.9 | Single Age |
| 15HP43_10 | 283.1 | 1.97 | 10.35000 | 0.24000 | 0.44900 | 0.01300 | 0.77401 | 2464.0 | 22.0 | 2390.0 | 56.0 | 2492 | 37 | 2492.0 | 37.0 | 4.1 | Single Age |
| 15HP43_11 | 911 | 3.19 | 4.24000 | 0.21000 | 0.28700 | 0.01500 | 0.96442 | 1675.0 | 43.0 | 1621.0 | 76.0 | 1733 | 26 | 1733.0 | 26.0 | 6.5 | Single Age |
| 15HP43_12 | 1031 | 9.11 | 5.15000 | 0.10000 | 0.30550 | 0.00670 | 0.65003 | 1842.0 | 17.0 | 1722.0 | 34.0 | 1979 | 24 | 1979.0 | 24.0 | 13.0 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP43_13 | 779 | 3.58 | 10.46000 | 0.18000 | 0.46530 | 0.00940 | 0.73150 | 2476.0 | 16.0 | 2460.0 | 41.0 | 2469 | 23 | 2469.0 | 23.0 | 0.4 | Single Age |
| 15HP43_14 | 1364 | 4.45 | 0.91300 | 0.02200 | 0.10380 | 0.00300 | 0.62355 | 662.0 | 13.0 | 637.0 | 17.0 | 736 | 51 | 637.0 | 17.0 | 3.8 | Single Age |
| 15HP43_15 | 317 | 3.35 | 3.12000 | 0.10000 | 0.22690 | 0.00690 | 0.64767 | 1441.0 | 25.0 | 1317.0 | 36.0 | 1648 | 48 | 1648.0 | 48.0 | 20.1 | Single Age |
| 15HP43_16 | 139.8 | 3.08 | 7.92000 | 0.27000 | 0.40800 | 0.01200 | 0.71218 | 2218.0 | 31.0 | 2204.0 | 54.0 | 2237 | 39 | 2237.0 | 39.0 | 1.5 | Single Age |
| 15HP43_17 | 801 | 2.81 | 2.65300 | 0.04800 | 0.22420 | 0.00520 | 0.76439 | 1315.0 | 13.0 | 1309.0 | 26.0 | 1319 | 35 | 1319.0 | 35.0 | 0.8 | Single Age |
| 15HP43_18 | 166.8 | 0.61 | 1.49300 | 0.04400 | 0.15200 | 0.00440 | 0.59047 | 933.0 | 18.0 | 911.0 | 24.0 | 958 | 49 | 958.0 | 49.0 | 4.9 | Single Age |
| 15HP43_19 | 135.7 | 0.49 | 12.66000 | 0.41000 | 0.49900 | 0.01900 | 0.73872 | 2650.0 | 30.0 | 2605.0 | 82.0 | 2665 | 46 | 2665.0 | 46.0 | 2.3 | Single Age |
| 15HP43_20 | 219 | 1.00 | 1.19800 | 0.04800 | 0.12980 | 0.00330 | 0.47142 | 799.0 | 22.0 | 787.0 | 19.0 | 832 | 61 | 787.0 | 19.0 | 1.5 | Single Age |
| 15HP43_21 | 405 | 0.87 | 5.12500 | 0.08600 | 0.32890 | 0.00710 | 0.75289 | 1838.0 | 14.0 | 1831.0 | 34.0 | 1829 | 25 | 1829.0 | 25.0 | 0.1 | Single Age |
| 15HP43_22 | 584 | 1.84 | 1.67400 | 0.02200 | 0.16900 | 0.00260 | 0.65416 | 998.1 | 8.2 | 1006.0 | 14.0 | 948 | 24 | 948.0 | 24.0 | 6.1 | Single Age |
| 15HP43_23 | 11.88 | 0.35 | 24.95000 | 0.89000 | 0.65400 | 0.02600 | 0.50377 | 3305.0 | 35.0 | 3242.0 | 99.0 | 3394 | 59 | 3394.0 | 59.0 | 4.5 | Single Age |
| 15HP43_24 | 442 | 2.64 | 1.64700 | 0.05500 | 0.15570 | 0.00300 | 0.80674 | 987.0 | 21.0 | 932.0 | 17.0 | 1121 | 39 | 1121.0 | 39.0 | 16.9 | Single Age |
| 15HP43_25 | 406 | 2.18 | 1.46200 | 0.02000 | 0.15160 | 0.00230 | 0.60432 | 914.3 | 8.1 | 910.0 | 13.0 | 920 | 28 | 920.0 | 28.0 | 1.1 | Single Age |
| 15HP43_26 | 223 | 5.70 | 1.57500 | 0.05000 | 0.15330 | 0.00540 | 0.71001 | 962.0 | 20.0 | 919.0 | 30.0 | 1048 | 49 | 1048.0 | 49.0 | 12.3 | Single Age |
| 15HP43_27 | 2520 | 16.50 | 1.56200 | 0.01500 | 0.15780 | 0.00170 | 0.74292 | 954.9 | 6.1 | 944.4 | 9.4 | 964 | 15 | 964.0 | 15.0 | 2.0 | Single Age |
| 15HP43_28 | 613 | 1.35 | 4.05300 | 0.09200 | 0.29460 | 0.00700 | 0.66822 | 1646.0 | 18.0 | 1671.0 | 35.0 | 1610 | 33 | 1610.0 | 33.0 | 3.8 | Single Age |
| 15HP43_29 | 535 | 19.50 | 1.40300 | 0.03900 | 0.15040 | 0.00370 | 0.47460 | 889.0 | 16.0 | 903.0 | 20.0 | 865 | 54 | 865.0 | 54.0 | 4.4 | Single Age |
| 15HP43_30 | 1590 | 5.32 | 0.67200 | 0.05400 | 0.08180 | 0.00640 | 0.80169 | 519.0 | 32.0 | 506.0 | 38.0 | 560 | 130 | 506.0 | 38.0 | 2.5 | Rim |
| 15HP43_30 | 363 | 1.58 | 1.05900 | 0.02500 | 0.11900 | 0.00360 | 0.12711 | 733.0 | 12.0 | 729.0 | 21.0 | 748 | 75 | 729.0 | 21.0 | 0.5 | Core |
| 15HP43_31 | 233.8 | 1.28 | 0.93400 | 0.02200 | 0.10950 | 0.00190 | 0.52381 | 669.0 | 11.0 | 670.0 | 11.0 | 658 | 52 | 670.0 | 11.0 | 0.1 | Single Age |
| 15HP43_32 | 458 | 5.58 | 3.92000 | 0.14000 | 0.27320 | 0.00640 | 0.82544 | 1615.0 | 28.0 | 1557.0 | 32.0 | 1696 | 32 | 1696.0 | 32.0 | 8.2 | Single Age |
| 15HP43_33 | 237 | 0.92 | 10.28000 | 0.16000 | 0.45340 | 0.00620 | 0.63764 | 2460.0 | 14.0 | 2409.0 | 27.0 | 2474 | 21 | 2474.0 | 21.0 | 2.6 | Single Age |
| 15HP43_34 | 243 | 5.20 | 1.83800 | 0.05700 | 0.17910 | 0.00660 | 0.53057 | 1060.0 | 20.0 | 1061.0 | 36.0 | 1042 | 61 | 1042.0 | 61.0 | 1.8 | Single Age |
| 15HP43_35 | 329 | 1.67 | 1.34800 | 0.03100 | 0.14030 | 0.00290 | 0.61032 | 868.0 | 13.0 | 848.0 | 17.0 | 901 | 39 | 848.0 | 17.0 | 2.3 | Single Age |
| 15HP43_36 | 883 | 1.64 | 4.16000 | 0.11000 | 0.29930 | 0.00970 | 0.83582 | 1662.0 | 22.0 | 1685.0 | 48.0 | 1626 | 34 | 1626.0 | 34.0 | 3.6 | Single Age |
| 15HP43_37 | 224.2 | 2.57 | 10.78000 | 0.41000 | 0.46300 | 0.02000 | 0.75966 | 2515.0 | 39.0 | 2447.0 | 88.0 | 2558 | 54 | 2558.0 | 54.0 | 4.3 | Single Age |
| 15HP43_38 | 731 | 2.22 | 6.60000 | 0.10000 | 0.37710 | 0.00740 | 0.75453 | 2057.0 | 14.0 | 2061.0 | 34.0 | 2051 | 22 | 2051.0 | 22.0 | 0.5 | Single Age |
| 15HP43_39 | 1001 | 1.26 | 1.06700 | 0.04100 | 0.11630 | 0.00620 | 0.88754 | 741.0 | 19.0 | 709.0 | 36.0 | 882 | 46 | 709.0 | 36.0 | 4.3 | Single Age |
| 15HP43_40 | 304 | 0.52 | 2.74000 | 0.13000 | 0.19910 | 0.00920 | 0.80531 | 1337.0 | 35.0 | 1169.0 | 50.0 | 1612 | 49 | 1612.0 | 49.0 | 27.5 | Single Age |
| 15HP43_41 | 218 | 2.49 | 1.49000 | 0.04000 | 0.15350 | 0.00380 | 0.67698 | 926.0 | 16.0 | 920.0 | 21.0 | 958 | 43 | 958.0 | 43.0 | 4.0 | Single Age |
| 15HP43_42 | 923 | 30.20 | 0.72500 | 0.03300 | 0.09050 | 0.00470 | 0.64028 | 553.0 | 19.0 | 558.0 | 28.0 | 585 | 78 | 558.0 | 28.0 | 0.9 | Rim |
| 15HP43_42 | 421 | 4.48 | 10.04000 | 0.48000 | 0.42800 | 0.02200 | 0.76627 | 2435.0 | 44.0 | 2293.0 | 99.0 | 2547 | 60 | 2547.0 | 60.0 | 10.0 | Core |
| 15HP43_43 | 464 | 2.96 | 5.30700 | 0.06900 | 0.34220 | 0.00570 | 0.63098 | 1869.0 | 11.0 | 1896.0 | 27.0 | 1850 | 24 | 1850.0 | 24.0 | 2.5 | Single Age |
| 15HP43_44 | 265 | 2.69 | 1.50300 | 0.03800 | 0.15260 | 0.00360 | 0.03574 | 929.0 | 15.0 | 915.0 | 20.0 | 963 | 52 | 963.0 | 52.0 | 5.0 | Single Age |
| 15HP43_45 | 568 | 3.02 | 1.07800 | 0.02000 | 0.11860 | 0.00180 | 0.61997 | 741.8 | 9.9 | 723.0 | 11.0 | 820 | 30 | 723.0 | 11.0 | 2.5 | Single Age |
| 15HP43_46 | 1010 | 3.86 | 0.62700 | 0.03200 | 0.08110 | 0.00450 | 0.71945 | 493.0 | 20.0 | 503.0 | 27.0 | 437 | 70 | 503.0 | 27.0 | 2.0 | Rim |
| 15HP43_46 | 1033 | 1.53 | 2.56800 | 0.08500 | 0.21520 | 0.00820 | 0.76055 | 1290.0 | 24.0 | 1256.0 | 43.0 | 1403 | 43 | 1403.0 | 43.0 | 10.5 | Core |
| 15HP43_47 | 587 | 2.07 | 3.27100 | 0.05800 | 0.24560 | 0.00540 | 0.76669 | 1473.0 | 14.0 | 1415.0 | 28.0 | 1555 | 21 | 1555.0 | 21.0 | 9.0 | Single Age |
| 15HP43_48 | 1234 | 39.20 | 2.20100 | 0.02700 | 0.20190 | 0.00310 | 0.70595 | 1180.8 | 8.4 | 1185.0 | 16.0 | 1160 | 22 | 1160.0 | 22.0 | 2.2 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP43_49 | 330 | 1.03 | 2.12000 | 0.05500 | 0.19370 | 0.00570 | 0.72140 | 1153.0 | 18.0 | 1141.0 | 31.0 | 1189 | 43 | 1189.0 | 43.0 | 4.0 | Single Age |
| 15HP43_50 | 463 | 1.45 | 1.89200 | 0.03900 | 0.18050 | 0.00370 | 0.73856 | 1078.0 | 14.0 | 1072.0 | 20.0 | 1096 | 28 | 1096.0 | 28.0 | 2.2 | Single Age |
| 15HP43_51 | 159 | 1.37 | 1.40300 | 0.03300 | 0.14990 | 0.00200 | 0.50756 | 892.0 | 13.0 | 900.0 | 11.0 | 861 | 38 | 861.0 | 38.0 | 4.5 | Single Age |
| 15HP43_52 | 2200 | 10.90 | 1.60200 | 0.07700 | 0.16330 | 0.00850 | 0.88324 | 975.0 | 28.0 | 974.0 | 47.0 | 959 | 48 | 959.0 | 48.0 | 1.6 | Rim |
| 15HP43_52 | 435 | 2.50 | 2.37800 | 0.05500 | 0.20310 | 0.00480 | 0.64385 | 1237.0 | 17.0 | 1191.0 | 26.0 | 1313 | 42 | 1313.0 | 42.0 | 9.3 | Core |
| 15HP43_53 | 127 | 1.00 | 1.08500 | 0.04200 | 0.11880 | 0.00340 | 0.50415 | 744.0 | 20.0 | 723.0 | 19.0 | 783 | 74 | 723.0 | 19.0 | 2.8 | Single Age |
| 15HP43_54 | 720 | 2.01 | 3.37000 | 0.13000 | 0.18310 | 0.00630 | 0.67721 | 1495.0 | 31.0 | 1083.0 | 34.0 | 2116 | 53 | DISC | DISC | 48.8 | Single Age |
| 15HP43_55 | 460 | 1.13 | 1.71100 | 0.03400 | 0.16990 | 0.00360 | 0.77107 | 1013.0 | 12.0 | 1011.0 | 20.0 | 998 | 24 | 998.0 | 24.0 | 1.3 | Single Age |
| 15HP43_56 | 99 | 2.23 | 1.39300 | 0.03200 | 0.14420 | 0.00330 | 0.36563 | 886.0 | 14.0 | 868.0 | 18.0 | 896 | 53 | 896.0 | 53.0 | 3.1 | Single Age |
| 15HP43_57 | 1500 | 5.30 | 1.54900 | 0.05900 | 0.15480 | 0.00570 | 0.76350 | 948.0 | 24.0 | 927.0 | 32.0 | 957 | 56 | 957.0 | 56.0 | 3.1 | Single Age |
| 15HP43_58 | 330 | 1.91 | 1.42900 | 0.05600 | 0.15190 | 0.00520 | 0.80075 | 900.0 | 23.0 | 911.0 | 29.0 | 867 | 47 | 867.0 | 47.0 | 5.1 | Single Age |
| 15HP43_59 | 523 | 2.64 | 0.83900 | 0.02000 | 0.10050 | 0.00240 | 0.69996 | 621.0 | 11.0 | 617.0 | 14.0 | 602 | 41 | 617.0 | 14.0 | 0.6 | Single Age |
| 15HP43_60 | 325 | 1.26 | 1.46700 | 0.05300 | 0.14730 | 0.00510 | 0.67322 | 918.0 | 21.0 | 885.0 | 29.0 | 937 | 60 | 937.0 | 60.0 | 5.5 | Single Age |
| 15HP43_61 | 68.8 | 1.94 | 1.59600 | 0.04400 | 0.16100 | 0.00360 | 0.31135 | 966.0 | 17.0 | 965.0 | 20.0 | 915 | 60 | 915.0 | 60.0 | 5.5 | Single Age |
| 15HP43_62 | 1040 | 5.99 | 2.26900 | 0.06500 | 0.20640 | 0.00440 | 0.82530 | 1204.0 | 19.0 | 1209.0 | 23.0 | 1173 | 30 | 1173.0 | 30.0 | 3.1 | Single Age |
| 15HP43_63 | 324 | 4.52 | 2.18300 | 0.02900 | 0.19750 | 0.00300 | 0.57552 | 1176.1 | 9.2 | 1162.0 | 16.0 | 1168 | 26 | 1168.0 | 26.0 | 0.5 | Single Age |
| 15HP43_64 | 1110 | 1.56 | 0.59500 | 0.01400 | 0.07550 | 0.00180 | 0.78015 | 473.1 | 8.8 | 469.0 | 11.0 | 485 | 38 | 469.0 | 11.0 | 0.9 | Single Age |
| 15HP43_66 | 226.5 | 1.57 | 1.54600 | 0.02800 | 0.15650 | 0.00250 | 0.47160 | 948.0 | 11.0 | 937.0 | 14.0 | 951 | 36 | 951.0 | 36.0 | 1.5 | Single Age |
| 15HP43_67 | 280 | 0.89 | 3.16700 | 0.06000 | 0.24860 | 0.00460 | 0.69671 | 1447.0 | 15.0 | 1431.0 | 24.0 | 1458 | 28 | 1458.0 | 28.0 | 1.9 | Single Age |
| 15HP43_68 | 545 | 0.72 | 10.46000 | 0.19000 | 0.46300 | 0.01000 | 0.74970 | 2477.0 | 17.0 | 2457.0 | 45.0 | 2479 | 27 | 2479.0 | 27.0 | 0.9 | Single Age |
| 15HP43_69 | 1095 | 1.70 | 0.71500 | 0.01400 | 0.08830 | 0.00170 | 0.70971 | 547.0 | 8.4 | 545.6 | 9.9 | 555 | 33 | 545.6 | 9.9 | 0.3 | Single Age |
| 15HP43_70 | 932 | 11.80 | 2.50400 | 0.07000 | 0.22120 | 0.00620 | 0.89123 | 1269.0 | 20.0 | 1290.0 | 33.0 | 1251 | 25 | 1251.0 | 25.0 | 3.1 | Single Age |
| 15HP43_71 | 652 | 1.34 | 4.44400 | 0.08000 | 0.30310 | 0.00630 | 0.76707 | 1718.0 | 15.0 | 1709.0 | 30.0 | 1720 | 26 | 1720.0 | 26.0 | 0.6 | Single Age |
| 15HP43_72 | -5.388E-05 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| 15HP43_73 | 1130 | 6.18 | 1.35700 | 0.02500 | 0.14640 | 0.00290 | 0.79445 | 871.0 | 11.0 | 880.0 | 16.0 | 845 | 24 | 845.0 | 16.0 | 1.0 | Single Age |
| 15HP43_74 | 741 | 2.45 | 0.86500 | 0.02600 | 0.10200 | 0.00340 | 0.66879 | 632.0 | 14.0 | 626.0 | 20.0 | 651 | 57 | 626.0 | 20.0 | 0.9 | Rim |
| 15HP43_74 | 616 | 1.00 | 1.16700 | 0.03100 | 0.12810 | 0.00340 | 0.39607 | 785.0 | 15.0 | 777.0 | 19.0 | 793 | 56 | 777.0 | 19.0 | 1.0 | Core |
| 15HP43_75 | 641 | 1.59 | 13.30000 | 0.61000 | 0.46300 | 0.02400 | 0.93754 | 2704.0 | 40.0 | 2460.0 | 100.0 | 2886 | 30 | 2886.0 | 30.0 | 14.8 | Single Age |
| 15HP43_76 | 373 | 1.75 | 5.49000 | 0.11000 | 0.35630 | 0.00730 | 0.78689 | 1897.0 | 16.0 | 1963.0 | 35.0 | 1857 | 25 | 1857.0 | 25.0 | 5.7 | Single Age |
| 15HP43_77 | 239 | 1.52 | 4.66000 | 0.13000 | 0.30960 | 0.00900 | 0.70611 | 1760.0 | 24.0 | 1737.0 | 44.0 | 1805 | 42 | 1805.0 | 42.0 | 3.8 | Single Age |
| 15HP43_78 | 79.6 | 0.95 | 6.83000 | 0.38000 | 0.34600 | 0.01400 | 0.79687 | 2081.0 | 51.0 | 1914.0 | 70.0 | 2297 | 56 | 2297.0 | 56.0 | 16.7 | Single Age |
| 15HP43_79 | 1150 | 15.90 | 1.62000 | 0.03700 | 0.16800 | 0.00430 | 0.75844 | 976.0 | 14.0 | 1000.0 | 24.0 | 934 | 38 | 934.0 | 38.0 | 7.1 | Single Age |
| 15HP43_80 | 353 | 2.73 | 2.33000 | 0.06600 | 0.21030 | 0.00640 | 0.87001 | 1219.0 | 20.0 | 1229.0 | 34.0 | 1214 | 32 | 1214.0 | 32.0 | 1.2 | Single Age |
| 15HP43_81 | 550 | 0.99 | 2.23300 | 0.05900 | 0.20550 | 0.00480 | 0.88286 | 1192.0 | 18.0 | 1204.0 | 26.0 | 1167 | 27 | 1167.0 | 27.0 | 3.2 | Single Age |
| 15HP43_82 | 780 | 2.98 | 1.44300 | 0.04200 | 0.15160 | 0.00460 | 0.77728 | 908.0 | 18.0 | 912.0 | 26.0 | 915 | 41 | 915.0 | 41.0 | 0.3 | Single Age |
| 15HP43_83 | 1310 | 5.61 | 10.63000 | 0.28000 | 0.46900 | 0.01400 | 0.68442 | 2485.0 | 25.0 | 2475.0 | 59.0 | 2505 | 34 | 2505.0 | 34.0 | 1.2 | Single Age |
| 15HP43_85 | 166 | 1.31 | 3.75500 | 0.09800 | 0.28190 | 0.00800 | 0.66495 | 1582.0 | 21.0 | 1599.0 | 40.0 | 1561 | 40 | 1561.0 | 40.0 | 2.4 | Single Age |
| 15HP43_86 | 297 | 1.45 | 0.76000 | 0.02000 | 0.09180 | 0.00240 | 0.61984 | 572.0 | 12.0 | 566.0 | 14.0 | 622 | 55 | 566.0 | 14.0 | 1.0 | Single Age |
| 15HP43_87 | 1069 | 3.76 | 10.23700 | 0.09100 | 0.46190 | 0.00470 | 0.64016 | 2457.9 | 8.2 | 2447.0 | 21.0 | 2473 | 14 | 2473.0 | 14.0 | 1.1 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP43_88 | 826 | 1.63 | 1.40200 | 0.03100 | 0.14900 | 0.00370 | 0.79829 | 888.0 | 13.0 | 894.0 | 21.0 | 894 | 30 | 894.0 | 30.0 | 0.0 | Single Age |
| 15HP43_89 | 596 | 3.70 | 2.27200 | 0.09400 | 0.19930 | 0.00960 | 0.76556 | 1198.0 | 29.0 | 1169.0 | 52.0 | 1295 | 57 | 1295.0 | 57.0 | 9.7 | Single Age |
| 15HP43_90 | 403 | 2.24 | 1.55700 | 0.03800 | 0.16220 | 0.00470 | 0.71241 | 951.0 | 15.0 | 968.0 | 26.0 | 912 | 40 | 912.0 | 40.0 | 6.1 | Single Age |
| 15HP43_91 | 806 | 3.47 | 1.37500 | 0.02900 | 0.14510 | 0.00290 | 0.63747 | 877.0 | 12.0 | 873.0 | 16.0 | 892 | 32 | 892.0 | 32.0 | 2.1 | Single Age |
| 15HP43_92 | 729 | 3.65 | 6.03000 | 0.24000 | 0.33100 | 0.01100 | 0.86454 | 1975.0 | 34.0 | 1843.0 | 51.0 | 2076 | 38 | 2076.0 | 38.0 | 11.2 | Single Age |
| 15HP43_93 | 456 | 2.91 | 1.46300 | 0.02400 | 0.15200 | 0.00260 | 0.55868 | 915.6 | 9.6 | 912.0 | 15.0 | 932 | 33 | 932.0 | 33.0 | 2.1 | Single Age |
| 15HP43_94 | 152 | 1.33 | 4.08000 | 0.11000 | 0.29500 | 0.01000 | 0.69053 | 1645.0 | 22.0 | 1660.0 | 52.0 | 1613 | 52 | 1613.0 | 52.0 | 2.9 | Single Age |
| 15HP43_97 | 328 | 1.39 | 2.61400 | 0.06100 | 0.22190 | 0.00560 | 0.80885 | 1308.0 | 17.0 | 1290.0 | 30.0 | 1329 | 37 | 1329.0 | 37.0 | 2.9 | Single Age |
| 15HP43_98 | 439 | 1.08 | 3.79100 | 0.08500 | 0.27620 | 0.00650 | 0.61311 | 1588.0 | 18.0 | 1575.0 | 32.0 | 1616 | 32 | 1616.0 | 32.0 | 2.5 | Single Age |
| 15HP43_99 | 280 | 1.61 | 2.00000 | 0.06500 | 0.17330 | 0.00520 | 0.60942 | 1112.0 | 22.0 | 1029.0 | 29.0 | 1298 | 54 | 1298.0 | 54.0 | 20.7 | Single Age |
| 15HP43_100 | 581 | 0.90 | 3.27000 | 0.10000 | 0.26220 | 0.00850 | 0.74403 | 1475.0 | 24.0 | 1506.0 | 42.0 | 1433 | 39 | 1433.0 | 39.0 | 5.1 | Single Age |
| 15HP43_101 | 381 | 4.19 | 0.79400 | 0.02100 | 0.09400 | 0.00290 | 0.69340 | 597.0 | 12.0 | 581.0 | 17.0 | 629 | 44 | 581.0 | 17.0 | 2.7 | Single Age |
| 15HP43_102 | 591 | 1.27 | 1.91300 | 0.03900 | 0.18370 | 0.00380 | 0.76622 | 1089.0 | 14.0 | 1086.0 | 21.0 | 1066 | 29 | 1066.0 | 29.0 | 1.9 | Single Age |
| 15HP43_103 | 577 | 2.47 | 3.64000 | 0.16000 | 0.25180 | 0.00760 | 0.83337 | 1552.0 | 33.0 | 1446.0 | 39.0 | 1670 | 41 | 1670.0 | 41.0 | 13.4 | Single Age |
| 15HP43_104 | 157 | 1.38 | 3.59000 | 0.12000 | 0.27160 | 0.00970 | 0.71601 | 1545.0 | 26.0 | 1546.0 | 49.0 | 1581 | 50 | 1581.0 | 50.0 | 2.2 | Single Age |
| 15HP43_105 | 274.8 | 0.91 | 1.11900 | 0.01800 | 0.12440 | 0.00170 | 0.39677 | 762.9 | 8.4 | 756.0 | 9.8 | 766 | 38 | 756.0 | 9.8 | 0.9 | Single Age |
| 15HP43_106 | 105.7 | 1.06 | 1.25500 | 0.03800 | 0.13230 | 0.00440 | 0.24054 | 828.0 | 16.0 | 801.0 | 25.0 | 899 | 80 | 801.0 | 25.0 | 3.3 | Single Age |
| 15HP43_107 | 186.4 | 1.09 | 1.74300 | 0.05100 | 0.16820 | 0.00600 | 0.68920 | 1021.0 | 19.0 | 1001.0 | 33.0 | 1036 | 56 | 1036.0 | 56.0 | 3.4 | Single Age |
| 15HP43_108 | 311 | 1.10 | 5.34700 | 0.08700 | 0.33610 | 0.00700 | 0.69315 | 1876.0 | 14.0 | 1866.0 | 34.0 | 1879 | 27 | 1879.0 | 27.0 | 0.7 | Single Age |
| 15HP43_109 | 630 | 0.77 | 10.13000 | 0.25000 | 0.44500 | 0.01200 | 0.80600 | 2443.0 | 23.0 | 2378.0 | 52.0 | 2478 | 27 | 2478.0 | 27.0 | 4.0 | Single Age |
| 15HP43_110 | 181.4 | 5.19 | 9.30000 | 0.24000 | 0.41800 | 0.01100 | 0.76959 | 2364.0 | 24.0 | 2251.0 | 51.0 | 2437 | 32 | 2437.0 | 32.0 | 7.6 | Single Age |
| 15HP43_111 | 151 | 1.10 | 2.41600 | 0.08800 | 0.20530 | 0.00650 | 0.57345 | 1245.0 | 26.0 | 1203.0 | 35.0 | 1275 | 62 | 1275.0 | 62.0 | 5.6 | Single Age |
| 15HP43_112 | 249.9 | 0.99 | 6.97000 | 0.16000 | 0.37970 | 0.00930 | 0.68786 | 2106.0 | 21.0 | 2074.0 | 43.0 | 2129 | 34 | 2129.0 | 34.0 | 2.6 | Single Age |
| 15HP43_113 | 1210 | 19.33 | 0.79700 | 0.02100 | 0.09620 | 0.00300 | 0.80405 | 595.0 | 12.0 | 591.0 | 18.0 | 589 | 40 | 591.0 | 18.0 | 0.7 | Single Age |
| 15HP43_114 | 638 | 2.65 | 0.77100 | 0.02500 | 0.09230 | 0.00370 | 0.73758 | 579.0 | 14.0 | 569.0 | 22.0 | 612 | 59 | 569.0 | 22.0 | 1.7 | Single Age |
| 15HP43_115 | 760 | 0.86 | 0.81900 | 0.03100 | 0.08410 | 0.00340 | 0.76160 | 605.0 | 17.0 | 520.0 | 20.0 | 894 | 54 | DISC | DISC | 14.0 | Single Age |
| 15HP43_116 | 122.5 | 1.88 | 1.61400 | 0.04500 | 0.16090 | 0.00380 | 0.48039 | 973.0 | 17.0 | 961.0 | 21.0 | 994 | 55 | 994.0 | 55.0 | 3.3 | Single Age |
| 15HP43_117 | 298 | 1.83 | 4.40100 | 0.06200 | 0.30100 | 0.00460 | 0.65720 | 1711.0 | 12.0 | 1695.0 | 23.0 | 1727 | 23 | 1727.0 | 23.0 | 1.9 | Single Age |
| 15HP43_118 | 424 | 2.69 | 1.56900 | 0.04100 | 0.15980 | 0.00380 | 0.72847 | 957.0 | 16.0 | 955.0 | 21.0 | 938 | 38 | 938.0 | 38.0 | 1.8 | Single Age |
| 15HP43_119 | 121.9 | 1.12 | 1.23100 | 0.03000 | 0.13370 | 0.00290 | 0.09357 | 813.0 | 13.0 | 808.0 | 16.0 | 812 | 63 | 808.0 | 16.0 | 0.6 | Single Age |
| 15HP43_120 | 417 | 10.30 | 1.40000 | 0.19000 | 0.14100 | 0.01500 | 0.31175 | 882.0 | 85.0 | 850.0 | 88.0 | 950 | 230 | 950.0 | 230.0 | 10.5 | Rim |
| 15HP43_120 | 103.5 | 2.61 | 12.68000 | 0.80000 | 0.51800 | 0.03400 | 0.52862 | 2651.0 | 60.0 | 2690.0 | 140.0 | 2580 | 120 | 2580.0 | 120.0 | 4.3 | Core |
| 15HP47_1 | 334 | 1.15 | 22.67000 | 0.30000 | 0.61820 | 0.00990 | 0.73933 | 3212.0 | 13.0 | 3102.0 | 39.0 | 3278 | 16 | 3278.0 | 16.0 | 5.4 | Single Age |
| 15HP47_2 | 62 | 0.37 | 0.92300 | 0.04600 | 0.10420 | 0.00260 | 0.44789 | 663.0 | 24.0 | 641.0 | 15.0 | 720 | 100 | 641.0 | 15.0 | 3.3 | Single Age |
| 15HP47_3 | 338 | 2.55 | 5.01000 | 0.16000 | 0.32300 | 0.01100 | 0.88648 | 1823.0 | 28.0 | 1801.0 | 53.0 | 1834 | 23 | 1834.0 | 23.0 | 1.8 | Single Age |
| 15HP47_4 | 139 | 1.80 | 0.71200 | 0.02300 | 0.08950 | 0.00160 | 0.17592 | 544.0 | 13.0 | 552.5 | 9.7 | 504 | 69 | 552.5 | 9.7 | 1.6 | Single Age |
| 15HP47_5 | 31.9 | 1.74 | 5.43000 | 0.41000 | 0.33900 | 0.02600 | 0.84358 | 1858.0 | 68.0 | 1860.0 | 130.0 | 1884 | 78 | 1884.0 | 78.0 | 1.3 | Single Age |
| 15HP47_6 | 63.7 | 2.72 | 5.39000 | 0.50000 | 0.23900 | 0.02000 | 0.96867 | 1865.0 | 85.0 | 1380.0 | 100.0 | 2457 | 42 | DISC | DISC | 43.8 | Single Age |
| 15HP47_7 | 210 | 1.14 | 3.74000 | 0.12000 | 0.28110 | 0.00830 | 0.87419 | 1573.0 | 26.0 | 1599.0 | 43.0 | 1557 | 26 | 1557.0 | 26.0 | 2.7 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP47_8 | 233 | 1.98 | 1.37900 | 0.02200 | 0.14530 | 0.00210 | 0.01914 | 880.3 | 9.1 | 874.0 | 12.0 | 902 | 33 | 902.0 | 33.0 | 3.1 | Single Age |
| 15HP47_9 | 106.9 | 0.64 | 12.14000 | 0.14000 | 0.49990 | 0.00670 | 0.47379 | 2614.0 | 11.0 | 2612.0 | 29.0 | 2611 | 22 | 2611.0 | 22.0 | 0.0 | Single Age |
| 15HP47_10 | 47.1 | 1.53 | 1.93900 | 0.05600 | 0.18030 | 0.00390 | 0.22253 | 1094.0 | 20.0 | 1068.0 | 21.0 | 1163 | 59 | 1163.0 | 59.0 | 8.2 | Single Age |
| 15HP47_11 | 363 | 4.16 | 1.81800 | 0.05700 | 0.17470 | 0.00260 | 0.55040 | 1051.0 | 21.0 | 1038.0 | 15.0 | 1073 | 57 | 1073.0 | 57.0 | 3.3 | Rim |
| 15HP47_11 | 277.7 | 4.14 | 9.21000 | 0.17000 | 0.43820 | 0.00920 | 0.79138 | 2362.0 | 15.0 | 2342.0 | 41.0 | 2401 | 20 | 2401.0 | 20.0 | 2.5 | Core |
| 15HP47_12 | 154.7 | 3.00 | 1.32800 | 0.02200 | 0.14400 | 0.00230 | 0.33499 | 858.0 | 10.0 | 867.0 | 13.0 | 831 | 41 | 831.0 | 13.0 | 1.0 | Single Age |
| 15HP47_13 | 206 | 1.05 | 2.10700 | 0.05900 | 0.19210 | 0.00570 | 0.77078 | 1147.0 | 19.0 | 1131.0 | 31.0 | 1192 | 39 | 1192.0 | 39.0 | 5.1 | Single Age |
| 15HP47_14 | 335 | 0.63 | 1.52200 | 0.02000 | 0.15820 | 0.00180 | 0.41379 | 939.7 | 8.0 | 946.0 | 10.0 | 929 | 30 | 929.0 | 30.0 | 1.8 | Single Age |
| 15HP47_15 | 272 | 2.01 | 8.72000 | 0.11000 | 0.40120 | 0.00510 | 0.58102 | 2310.0 | 11.0 | 2178.0 | 22.0 | 2439 | 19 | 2439.0 | 19.0 | 10.7 | Single Age |
| 15HP47_16 | 18.31 | 2.38 | 0.64000 | 0.06200 | 0.06010 | 0.00390 | 0.16773 | 494.0 | 40.0 | 376.0 | 23.0 | 980 | 240 | DISC | DISC | 23.9 | Single Age |
| 15HP47_17 | 146.2 | 2.00 | 3.13800 | 0.08200 | 0.24080 | 0.00410 | 0.74299 | 1441.0 | 20.0 | 1390.0 | 21.0 | 1536 | 36 | 1536.0 | 36.0 | 9.5 | Single Age |
| 15HP47_18 | 1592 | 3.77 | 1.35200 | 0.01000 | 0.14420 | 0.00130 | 0.57938 | 868.7 | 4.4 | 868.2 | 7.1 | 878 | 16 | 878.0 | 16.0 | 1.1 | Single Age |
| 15HP47_19 | 870 | 3.77 | 1.68700 | 0.02000 | 0.17240 | 0.00190 | 0.56294 | 1003.1 | 7.5 | 1025.0 | 10.0 | 977 | 22 | 977.0 | 22.0 | 4.9 | Single Age |
| 15HP47_20 | 800 | 61.00 | 2.09100 | 0.07300 | 0.19740 | 0.00560 | 0.56424 | 1158.0 | 26.0 | 1161.0 | 30.0 | 1157 | 66 | 1157.0 | 66.0 | 0.3 | Single Age |
| 15HP47_21 | 73 | 0.68 | 2.14300 | 0.04600 | 0.19860 | 0.00320 | 0.24523 | 1163.0 | 15.0 | 1169.0 | 18.0 | 1182 | 47 | 1182.0 | 47.0 | 1.1 | Single Age |
| 15HP47_22 | 53.2 | 0.83 | 1.21900 | 0.04900 | 0.12720 | 0.00310 | 0.13794 | 805.0 | 22.0 | 772.0 | 17.0 | 920 | 72 | 772.0 | 17.0 | 4.1 | Single Age |
| 15HP47_23 | 236 | 0.93 | 1.65800 | 0.03700 | 0.16080 | 0.00310 | 0.35047 | 991.0 | 14.0 | 964.0 | 17.0 | 1072 | 52 | 1072.0 | 52.0 | 10.1 | Single Age |
| 15HP47_24 | 278 | 2.31 | 1.11500 | 0.01600 | 0.12630 | 0.00150 | 0.40694 | 759.9 | 7.6 | 766.4 | 8.6 | 760 | 32 | 766.4 | 8.6 | 0.9 | Single Age |
| 15HP47_25 | 462 | 6.05 | 5.24500 | 0.06200 | 0.33750 | 0.00460 | 0.73795 | 1859.0 | 10.0 | 1874.0 | 22.0 | 1839 | 16 | 1839.0 | 16.0 | 1.9 | Single Age |
| 15HP47_26 | 331 | 8.55 | 0.76800 | 0.01500 | 0.09250 | 0.00140 | 0.56215 | 577.8 | 8.4 | 570.3 | 8.3 | 605 | 37 | 570.3 | 8.3 | 1.3 | Single Age |
| 15HP47_27 | 259 | 2.67 | 13.60000 | 0.19000 | 0.54640 | 0.00750 | 0.80843 | 2723.0 | 13.0 | 2809.0 | 31.0 | 2673 | 15 | 2673.0 | 15.0 | 5.1 | Single Age |
| 15HP47_28 | 380 | 4.07 | 2.19300 | 0.09100 | 0.19080 | 0.00700 | 0.76153 | 1176.0 | 29.0 | 1125.0 | 38.0 | 1318 | 51 | 1318.0 | 51.0 | 14.6 | Single Age |
| 15HP47_29 | 367 | 2.51 | - | - | - | - | - | - | - | - | - | 502 | 38 | - | - | - | Single Age |
| 15HP47_30 | 341 | 7.84 | 1.39000 | 0.11000 | 0.12380 | 0.00290 | 0.32087 | 878.0 | 45.0 | 752.0 | 17.0 | 1220 | 150 | DISC | DISC | 14.4 | Single Age |
| 15HP47_31 | 135.9 | 0.94 | 2.53300 | 0.03500 | 0.21910 | 0.00230 | 0.28842 | 1281.0 | 10.0 | 1277.0 | 12.0 | 1298 | 31 | 1298.0 | 31.0 | 1.6 | Single Age |
| 15HP47_32 | 103 | 4.04 | 1.80500 | 0.04700 | 0.17550 | 0.00280 | 0.17713 | 1044.0 | 17.0 | 1042.0 | 15.0 | 1051 | 49 | 1051.0 | 49.0 | 0.9 | Single Age |
| 15HP47_33 | 68.7 | 0.87 | 3.11000 | 0.07100 | 0.25410 | 0.00460 | 0.09950 | 1434.0 | 17.0 | 1463.0 | 24.0 | 1392 | 57 | 1392.0 | 57.0 | 5.1 | Single Age |
| 15HP47_34 | 369 | 6.57 | 3.51000 | 0.16000 | 0.26100 | 0.01100 | 0.80993 | 1533.0 | 38.0 | 1495.0 | 54.0 | 1559 | 47 | 1559.0 | 47.0 | 4.1 | Single Age |
| 15HP47_35 | 294 | 1.74 | 0.60700 | 0.01400 | 0.07760 | 0.00120 | 0.46060 | 481.2 | 8.5 | 481.8 | 7.1 | 464 | 46 | 481.8 | 7.1 | 0.1 | Single Age |
| 15HP47_36 | 366 | 1.68 | 4.51500 | 0.04300 | 0.31060 | 0.00300 | 0.55368 | 1733.1 | 7.9 | 1743.0 | 15.0 | 1725 | 17 | 1725.0 | 17.0 | 1.0 | Single Age |
| 15HP47_37 | 327 | 1.32 | 1.68400 | 0.03200 | 0.16930 | 0.00330 | 0.62712 | 1004.0 | 12.0 | 1008.0 | 18.0 | 998 | 31 | 998.0 | 31.0 | 1.0 | Single Age |
| 15HP47_38 | 1390 | 4.24 | 1.25900 | 0.01000 | 0.13700 | 0.00120 | 0.53934 | 827.4 | 4.7 | 827.7 | 6.9 | 826 | 18 | 827.7 | 6.9 | 0.0 | Single Age |
| 15HP47_39 | 39.79 | 0.83 | 1.12200 | 0.05700 | 0.11970 | 0.00480 | 0.20031 | 760.0 | 27.0 | 728.0 | 27.0 | 830 | 120 | 728.0 | 27.0 | 4.2 | Single Age |
| 15HP47_40 | 66.6 | 1.00 | 9.96000 | 0.15000 | 0.44610 | 0.00850 | 0.51885 | 2432.0 | 14.0 | 2376.0 | 38.0 | 2479 | 29 | 2479.0 | 29.0 | 4.2 | Single Age |
| 15HP47_41 | 364.4 | 2.12 | 1.61300 | 0.02200 | 0.16290 | 0.00220 | 0.13580 | 974.5 | 8.5 | 973.0 | 12.0 | 978 | 31 | 978.0 | 31.0 | 0.5 | Single Age |
| 15HP47_42 | 50 | 1.20 | 1.72000 | 0.06500 | 0.17010 | 0.00550 | 0.47301 | 1011.0 | 24.0 | 1016.0 | 31.0 | 1013 | 64 | 1013.0 | 64.0 | 0.3 | Single Age |
| 15HP47_43 | 127.4 | 1.88 | 1.55600 | 0.02900 | 0.16160 | 0.00230 | 0.24754 | 953.0 | 12.0 | 966.0 | 13.0 | 939 | 45 | 939.0 | 45.0 | 2.9 | Single Age |
| 15HP47_44 | 1300 | 10.60 | 0.76100 | 0.01700 | 0.09060 | 0.00160 | 0.57503 | 574.2 | 9.9 | 559.3 | 9.7 | 629 | 38 | 559.3 | 9.7 | 2.6 | Single Age |
| 15HP47_45 | 79.2 | 0.66 | 9.68000 | 0.19000 | 0.42730 | 0.00920 | 0.48069 | 2404.0 | 18.0 | 2293.0 | 42.0 | 2508 | 33 | 2508.0 | 33.0 | 8.6 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP47_46 | 412 | 4.37 | 3.94800 | 0.07100 | 0.27900 | 0.00460 | 0.70304 | 1622.0 | 15.0 | 1586.0 | 23.0 | 1681 | 25 | 1681.0 | 25.0 | 5.7 | Single Age |
| 15HP47_47 | 150 | 1.19 | 2.57100 | 0.04700 | 0.21880 | 0.00330 | 0.45536 | 1291.0 | 13.0 | 1275.0 | 18.0 | 1321 | 35 | 1321.0 | 35.0 | 3.5 | Single Age |
| 15HP47_48 | 218.1 | 2.44 | 10.47000 | 0.16000 | 0.45670 | 0.00970 | 0.84819 | 2477.0 | 14.0 | 2424.0 | 43.0 | 2523 | 23 | 2523.0 | 23.0 | 3.9 | Single Age |
| 15HP47_49 | 84.4 | 1.08 | 1.62600 | 0.06800 | 0.16630 | 0.00750 | 0.80115 | 981.0 | 26.0 | 989.0 | 41.0 | 920 | 52 | 920.0 | 52.0 | 7.5 | Single Age |
| 15HP47_50 | 436 | 2.56 | 5.37300 | 0.05400 | 0.34210 | 0.00370 | 0.55388 | 1883.2 | 8.4 | 1896.0 | 18.0 | 1865 | 17 | 1865.0 | 17.0 | 1.7 | Single Age |
| 15HP47_51 | 93.2 | 0.90 | 1.30700 | 0.03300 | 0.13770 | 0.00190 | 0.14381 | 849.0 | 14.0 | 832.0 | 11.0 | 897 | 57 | 832.0 | 11.0 | 2.0 | Single Age |
| 15HP47_52 | 97.7 | 2.28 | 1.07700 | 0.04800 | 0.12200 | 0.00400 | 0.15917 | 739.0 | 24.0 | 742.0 | 23.0 | 731 | 97 | 742.0 | 23.0 | 0.4 | Single Age |
| 15HP47_53 | 50.6 | 0.42 | 0.75500 | 0.03700 | 0.09010 | 0.00270 | 0.11360 | 571.0 | 21.0 | 556.0 | 16.0 | 620 | 130 | 556.0 | 16.0 | 2.6 | Single Age |
| 15HP47_54 | 199 | 0.73 | 1.59000 | 0.03500 | 0.15960 | 0.00280 | 0.53169 | 965.0 | 14.0 | 954.0 | 15.0 | 996 | 45 | 996.0 | 45.0 | 4.2 | Single Age |
| 15HP47_55 | 49.8 | 1.33 | 1.03100 | 0.04200 | 0.11760 | 0.00250 | 0.08112 | 715.0 | 21.0 | 718.0 | 14.0 | 688 | 94 | 718.0 | 14.0 | 0.4 | Single Age |
| 15HP47_56 | 317 | 5.70 | - | - | - | - | - | - | - | - | - | 1092 | 36 | - | - | - | Single Age |
| 15HP47_57 | 131 | 1.51 | 1.41000 | 0.03600 | 0.14660 | 0.00240 | 0.32474 | 891.0 | 15.0 | 882.0 | 13.0 | 927 | 49 | 927.0 | 49.0 | 4.9 | Single Age |
| 15HP47_58 | 163 | 2.40 | 5.00000 | 0.17000 | 0.32300 | 0.01100 | 0.79146 | 1813.0 | 29.0 | 1802.0 | 54.0 | 1831 | 42 | 1831.0 | 42.0 | 1.6 | Single Age |
| 15HP47_59 | 350.2 | 2.44 | 10.14000 | 0.14000 | 0.45790 | 0.00670 | 0.69863 | 2449.0 | 12.0 | 2430.0 | 30.0 | 2476 | 20 | 2476.0 | 20.0 | 1.9 | Single Age |
| 15HP47_60 | 307 | 1.46 | 0.67200 | 0.01500 | 0.08550 | 0.00130 | 0.37934 | 521.2 | 9.0 | 528.9 | 7.6 | 485 | 46 | 528.9 | 7.6 | 1.5 | Single Age |
| 15HP47_61 | 320 | 2.99 | 1.36000 | 0.02700 | 0.14410 | 0.00210 | 0.39311 | 870.0 | 11.0 | 869.0 | 11.0 | 872 | 35 | 872.0 | 35.0 | 0.3 | Single Age |
| 15HP47_62 | 703 | 9.08 | 10.94100 | 0.07400 | 0.47890 | 0.00390 | 0.68514 | 2518.5 | 6.1 | 2522.0 | 17.0 | 2517 | 10 | 2517.0 | 10.0 | 0.2 | Single Age |
| 15HP47_63 | 1050 | 2.21 | 1.20600 | 0.02300 | 0.13110 | 0.00200 | 0.68628 | 802.0 | 10.0 | 794.0 | 11.0 | 842 | 24 | 794.0 | 11.0 | 1.0 | Single Age |
| 15HP47_64 | 1210 | 35.70 | 4.95300 | 0.06300 | 0.32080 | 0.00450 | 0.77047 | 1813.0 | 10.0 | 1793.0 | 22.0 | 1836 | 16 | 1836.0 | 16.0 | 2.3 | Single Age |
| 15HP47_65 | 99.2 | 1.25 | 1.26800 | 0.02900 | 0.13670 | 0.00220 | 0.27560 | 831.0 | 13.0 | 825.0 | 13.0 | 851 | 48 | 825.0 | 13.0 | 0.7 | Single Age |
| 15HP47_66 | 167 | 3.67 | 1.91000 | 0.04700 | 0.18480 | 0.00420 | 0.54914 | 1082.0 | 16.0 | 1092.0 | 23.0 | 1066 | 38 | 1066.0 | 38.0 | 2.4 | Single Age |
| 15HP47_67 | 410 | 1.04 | 0.99200 | 0.01600 | 0.11500 | 0.00140 | 0.43099 | 700.2 | 7.9 | 701.8 | 7.8 | 683 | 28 | 701.8 | 7.8 | 0.2 | Single Age |
| 15HP47_68 | 472 | 3.43 | 0.60900 | 0.01300 | 0.07624 | 0.00095 | 0.45214 | 482.0 | 8.4 | 473.6 | 5.7 | 523 | 42 | 473.6 | 5.7 | 1.7 | Single Age |
| 15HP47_69 | 311 | 1.47 | 9.96000 | 0.15000 | 0.45100 | 0.00700 | 0.80828 | 2430.0 | 14.0 | 2399.0 | 31.0 | 2454 | 20 | 2454.0 | 20.0 | 2.2 | Single Age |
| 15HP47_70 | 216 | 2.48 | 1.60300 | 0.03100 | 0.15990 | 0.00290 | 0.44318 | 972.0 | 13.0 | 958.0 | 17.0 | 1001 | 45 | 1001.0 | 45.0 | 4.3 | Single Age |
| 15HP47_71 | 371 | 0.97 | 1.37300 | 0.01700 | 0.14440 | 0.00180 | 0.48540 | 878.0 | 7.2 | 869.0 | 10.0 | 889 | 28 | 889.0 | 28.0 | 2.2 | Single Age |
| 15HP47_72 | 278 | 1.05 | 5.00900 | 0.06600 | 0.32430 | 0.00380 | 0.18676 | 1820.0 | 11.0 | 1811.0 | 19.0 | 1837 | 19 | 1837.0 | 19.0 | 1.4 | Single Age |
| 15HP47_73 | 481 | 1.45 | 1.51100 | 0.03000 | 0.15580 | 0.00230 | 0.72880 | 933.0 | 12.0 | 933.0 | 13.0 | 945 | 29 | 945.0 | 29.0 | 1.3 | Single Age |
| 15HP47_74 | 220 | 42.10 | 0.86100 | 0.05200 | 0.10010 | 0.00570 | 0.28446 | 629.0 | 28.0 | 615.0 | 33.0 | 760 | 140 | 615.0 | 33.0 | 2.2 | Rim |
| 15HP47_74 | 277.4 | 2.79 | 1.48900 | 0.03200 | 0.15610 | 0.00290 | 0.55655 | 927.0 | 13.0 | 935.0 | 16.0 | 923 | 36 | 923.0 | 36.0 | 1.3 | Core |
| 15HP47_75 | 47.7 | 0.55 | 1.56900 | 0.05200 | 0.15690 | 0.00310 | 0.12285 | 957.0 | 21.0 | 939.0 | 17.0 | 993 | 71 | 993.0 | 71.0 | 5.4 | Single Age |
| 15HP47_76 | 2052 | 23.10 | 1.89600 | 0.02100 | 0.18090 | 0.00150 | 0.66983 | 1079.3 | 7.5 | 1071.7 | 8.4 | 1099 | 16 | 1099.0 | 16.0 | 2.5 | Single Age |
| 15HP47_77 | 310 | 6.14 | 1.65700 | 0.03700 | 0.17380 | 0.00290 | 0.61996 | 993.0 | 15.0 | 1033.0 | 16.0 | 904 | 33 | 904.0 | 33.0 | 14.3 | Single Age |
| 15HP47_78 | 181.2 | 0.78 | 10.71000 | 0.16000 | 0.47130 | 0.00600 | 0.62767 | 2498.0 | 14.0 | 2494.0 | 27.0 | 2512 | 20 | 2512.0 | 20.0 | 0.7 | Single Age |
| 15HP47_79 | 344 | 1.02 | 1.56000 | 0.02200 | 0.15820 | 0.00160 | 0.30816 | 954.6 | 8.6 | 946.7 | 9.0 | 957 | 27 | 957.0 | 27.0 | 1.1 | Single Age |
| 15HP47_80 | 650 | 3.80 | 0.62400 | 0.01000 | 0.07930 | 0.00120 | 0.36497 | 491.8 | 6.5 | 491.9 | 7.0 | 469 | 39 | 491.9 | 7.0 | 0.0 | Single Age |
| 15HP47_81 | 217.5 | 3.34 | 1.49700 | 0.02700 | 0.15600 | 0.00260 | 0.57714 | 928.0 | 11.0 | 934.0 | 14.0 | 928 | 33 | 928.0 | 33.0 | 0.6 | Single Age |
| 15HP47_82 | 405 | 11.60 | - | - | - | - | - | - | - | - | - | 1229 | 38 | - | - | - | Single Age |
| 15HP47_83 | 27.9 | 0.48 | 1.27600 | 0.07100 | 0.11590 | 0.00460 | 0.25271 | 834.0 | 33.0 | 706.0 | 27.0 | 1180 | 130 | DISC | DISC | 15.3 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP47_84 | 211 | 1.83 | 0.97800 | 0.01700 | 0.11200 | 0.00140 | 0.09690 | 692.0 | 8.6 | 684.3 | 8.2 | 728 | 48 | 684.3 | 8.2 | 1.1 | Single Age |
| 15HP47_85 | 418 | 0.67 | 1.32600 | 0.02300 | 0.14030 | 0.00160 | 0.38291 | 859.0 | 10.0 | 846.5 | 8.8 | 877 | 32 | 846.5 | 8.8 | 1.5 | Single Age |
| 15HP47_86 | 116.1 | 1.35 | 1.82900 | 0.03600 | 0.17830 | 0.00250 | 0.24972 | 1058.0 | 12.0 | 1058.0 | 13.0 | 1078 | 42 | 1078.0 | 42.0 | 1.9 | Single Age |
| 15HP47_87 | 771 | 15.10 | 1.90800 | 0.02100 | 0.18200 | 0.00190 | 0.64638 | 1083.4 | 7.2 | 1078.0 | 11.0 | 1098 | 18 | 1098.0 | 18.0 | 1.8 | Single Age |
| 15HP47_88 | 198 | 2.90 | 1.62500 | 0.04400 | 0.16110 | 0.00360 | 0.57541 | 978.0 | 17.0 | 962.0 | 20.0 | 1013 | 43 | 1013.0 | 43.0 | 5.0 | Single Age |
| 15HP47_89 | 142 | 2.79 | 1.40400 | 0.03500 | 0.14600 | 0.00240 | 0.30394 | 889.0 | 15.0 | 878.0 | 13.0 | 922 | 52 | 922.0 | 52.0 | 4.8 | Single Age |
| 15HP47_90 | 553 | 1.63 | 3.14200 | 0.06500 | 0.24430 | 0.00430 | 0.57259 | 1442.0 | 16.0 | 1409.0 | 22.0 | 1497 | 31 | 1497.0 | 31.0 | 5.9 | Single Age |
| 15HP47_91 | 95.3 | 0.52 | 0.68500 | 0.02000 | 0.08690 | 0.00140 | 0.00110 | 530.0 | 12.0 | 536.9 | 8.5 | 523 | 80 | 536.9 | 8.5 | 1.3 | Single Age |
| 15HP47_92 | 200.2 | 1.19 | 1.47200 | 0.02000 | 0.15130 | 0.00180 | 0.14581 | 919.5 | 8.2 | 908.0 | 10.0 | 948 | 32 | 948.0 | 32.0 | 4.2 | Single Age |
| 15HP47_93 | 165 | 1.05 | 1.37900 | 0.03200 | 0.14700 | 0.00250 | 0.13841 | 878.0 | 14.0 | 884.0 | 14.0 | 863 | 58 | 863.0 | 58.0 | 2.4 | Single Age |
| 15HP47_94 | 1590 | 11.00 | 1.33500 | 0.01300 | 0.14500 | 0.00160 | 0.57612 | 861.3 | 5.6 | 872.5 | 9.2 | 847 | 22 | 847.0 | 9.2 | 1.3 | Single Age |
| 15HP47_95 | 169.1 | 1.10 | 1.59300 | 0.06400 | 0.15660 | 0.00370 | 0.31929 | 966.0 | 25.0 | 938.0 | 20.0 | 1058 | 92 | 1058.0 | 92.0 | 11.3 | Rim |
| 15HP47_95 | 97.1 | 0.94 | 3.20900 | 0.09800 | 0.24530 | 0.00640 | 0.49409 | 1458.0 | 24.0 | 1414.0 | 33.0 | 1557 | 57 | 1557.0 | 57.0 | 9.2 | Core |
| 15HP47_96 | 286 | 1.11 | 1.41800 | 0.03100 | 0.14860 | 0.00230 | 0.59060 | 896.0 | 13.0 | 893.0 | 13.0 | 935 | 35 | 935.0 | 35.0 | 4.5 | Single Age |
| 15HP47_97 | 462 | 1.26 | 0.62900 | 0.01800 | 0.08130 | 0.00220 | 0.60863 | 495.0 | 11.0 | 504.0 | 13.0 | 411 | 57 | 504.0 | 13.0 | 1.8 | Single Age |
| 15HP47_98 | 214 | 1.50 | 10.85000 | 0.13000 | 0.47760 | 0.00710 | 0.56531 | 2511.0 | 11.0 | 2520.0 | 30.0 | 2501 | 22 | 2501.0 | 22.0 | 0.8 | Single Age |
| 15HP47_99 | 1460 | 14.50 | 0.62740 | 0.00830 | 0.07950 | 0.00100 | 0.66692 | 494.3 | 5.2 | 492.9 | 6.0 | 511 | 23 | 492.9 | 6.0 | 0.3 | Single Age |
| 15HP47_100 | 752 | 1.81 | 1.41100 | 0.02000 | 0.15020 | 0.00210 | 0.68839 | 893.9 | 8.4 | 902.0 | 12.0 | 875 | 25 | 875.0 | 25.0 | 3.1 | Single Age |
| 15HP47_101 | 53.1 | 1.12 | 16.12000 | 0.37000 | 0.55800 | 0.01200 | 0.54873 | 2881.0 | 22.0 | 2856.0 | 52.0 | 2905 | 39 | 2905.0 | 39.0 | 1.7 | Single Age |
| 15HP47_102 | 118.2 | 0.71 | 1.12900 | 0.02700 | 0.12360 | 0.00190 | 0.02576 | 771.0 | 12.0 | 751.0 | 11.0 | 825 | 61 | 751.0 | 11.0 | 2.6 | Single Age |
| 15HP47_103 | 272 | 1.09 | 10.81000 | 0.10000 | 0.47950 | 0.00430 | 0.65447 | 2506.5 | 8.9 | 2524.0 | 19.0 | 2499 | 15 | 2499.0 | 15.0 | 1.0 | Single Age |
| 15HP47_104 | 183 | 1.10 | 0.93000 | 0.02200 | 0.10940 | 0.00170 | 0.29452 | 669.0 | 12.0 | 669.0 | 10.0 | 680 | 52 | 669.0 | 10.0 | 0.0 | Single Age |
| 15HP47_105 | 156.7 | 0.75 | 9.88000 | 0.10000 | 0.44890 | 0.00460 | 0.33900 | 2425.0 | 10.0 | 2390.0 | 20.0 | 2473 | 24 | 2473.0 | 24.0 | 3.4 | Single Age |
| 15HP47_106 | 666 | 2.57 | 3.51000 | 0.15000 | 0.26670 | 0.00980 | 0.85583 | 1526.0 | 34.0 | 1523.0 | 50.0 | 1527 | 41 | 1527.0 | 41.0 | 0.3 | Single Age |
| 15HP47_107 | 252 | 1.35 | 1.33700 | 0.02200 | 0.14360 | 0.00220 | 0.35451 | 861.2 | 9.5 | 865.0 | 12.0 | 871 | 36 | 871.0 | 36.0 | 0.7 | Single Age |
| 15HP47_108 | 810 | 56.40 | 1.62900 | 0.02200 | 0.16460 | 0.00180 | 0.48791 | 980.7 | 8.3 | 982.0 | 10.0 | 987 | 23 | 987.0 | 23.0 | 0.5 | Single Age |
| 15HP47_109 | 57.6 | 1.15 | 2.83000 | 0.08700 | 0.23270 | 0.00530 | 0.50241 | 1359.0 | 23.0 | 1348.0 | 28.0 | 1409 | 52 | 1409.0 | 52.0 | 4.3 | Single Age |
| 15HP47_110 | 166.8 | 0.41 | 1.47800 | 0.02700 | 0.15130 | 0.00190 | 0.20734 | 920.0 | 11.0 | 908.0 | 11.0 | 963 | 43 | 963.0 | 43.0 | 5.7 | Single Age |
| 15HP47_111 | 1550 | 3.74 | 1.47700 | 0.02300 | 0.15230 | 0.00220 | 0.78224 | 920.3 | 9.3 | 913.0 | 13.0 | 963 | 19 | 963.0 | 19.0 | 5.2 | Single Age |
| 15HP47_112 | 700 | 15.70 | 5.09500 | 0.07000 | 0.33170 | 0.00370 | 0.72005 | 1836.0 | 12.0 | 1849.0 | 17.0 | 1838 | 17 | 1838.0 | 17.0 | 0.6 | Single Age |
| 15HP47_113 | 477 | 2.24 | 1.24200 | 0.02500 | 0.13060 | 0.00170 | 0.43863 | 819.0 | 11.0 | 791.3 | 9.6 | 907 | 33 | 791.3 | 9.6 | 3.4 | Single Age |
| 15HP47_114 | 298 | 0.83 | 1.17000 | 0.02000 | 0.12790 | 0.00150 | 0.21389 | 785.9 | 9.2 | 775.7 | 8.6 | 801 | 36 | 775.7 | 8.6 | 1.3 | Single Age |
| 15HP47_115 | 798 | 1.74 | 10.31800 | 0.09900 | 0.46250 | 0.00440 | 0.69923 | 2462.9 | 8.9 | 2452.0 | 19.0 | 2476 | 12 | 2476.0 | 12.0 | 1.0 | Single Age |
| 15HP47_116 | 549 | 1.46 | 1.67300 | 0.02100 | 0.16800 | 0.00200 | 0.39231 | 997.6 | 7.9 | 1001.0 | 11.0 | 1010 | 28 | 1010.0 | 28.0 | 0.9 | Single Age |
| 15HP47_117 | 277 | 1.84 | - | - | - | - | - | - | - | - | - | 668 | 35 | - | - | - | Single Age |
| 15HP47_118 | 294 | 1.30 | 10.40000 | 0.10000 | 0.46020 | 0.00480 | 0.65238 | 2470.1 | 9.3 | 2440.0 | 21.0 | 2507 | 15 | 2507.0 | 15.0 | 2.7 | Single Age |
| 15HP47_119 | 129 | 0.70 | 0.70000 | 0.02600 | 0.08850 | 0.00140 | 0.09502 | 536.0 | 15.0 | 546.3 | 8.1 | 523 | 81 | 546.3 | 8.1 | 1.9 | Single Age |
| 15HP47_120 | 418 | 1.31 | 1.78200 | 0.02300 | 0.17700 | 0.00240 | 0.45302 | 1039.3 | 8.1 | 1051.0 | 13.0 | 1017 | 26 | 1017.0 | 26.0 | 3.3 | Single Age |
| 15HP77_1 | 273 | 1.33 | 1.61500 | 0.03000 | 0.16350 | 0.00230 | 0.48507 | 977.0 | 11.0 | 976.0 | 13.0 | 974 | 35 | 974.0 | 35.0 | 0.2 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP77_2 | 443 | 0.95 | 10.61000 | 0.16000 | 0.45450 | 0.00550 | 0.59107 | 2488.0 | 14.0 | 2415.0 | 24.0 | 2549 | 20 | 2549.0 | 20.0 | 5.3 | Single Age |
| 15HP77_3 | 243.1 | 1.62 | 8.12700 | 0.08900 | 0.43010 | 0.00580 | 0.04610 | 2244.3 | 9.9 | 2305.0 | 26.0 | 2188 | 18 | 2188.0 | 18.0 | 5.3 | Single Age |
| 15HP77_4 | 1465 | 8.20 | 1.30000 | 0.01100 | 0.13930 | 0.00130 | 0.45754 | 845.6 | 5.0 | 840.8 | 7.2 | 849 | 17 | 840.8 | 7.2 | 0.6 | Single Age |
| 15HP77_5 | 123.1 | 0.68 | 0.73000 | 0.03500 | 0.08790 | 0.00230 | 0.20948 | 555.0 | 21.0 | 543.0 | 13.0 | 580 | 110 | 543.0 | 13.0 | 2.2 | Single Age |
| 15HP77_6 | 374 | 1.15 | 1.29400 | 0.01500 | 0.13450 | 0.00140 | 0.48677 | 843.0 | 6.5 | 813.3 | 7.9 | 933 | 23 | 813.3 | 7.9 | 3.5 | Single Age |
| 15HP77_7 | 118.3 | 1.33 | 10.53000 | 0.16000 | 0.47410 | 0.00840 | 0.71414 | 2481.0 | 14.0 | 2501.0 | 37.0 | 2453 | 22 | 2453.0 | 22.0 | 2.0 | Single Age |
| 15HP77_8 | 225.8 | 1.40 | 12.07000 | 0.16000 | 0.48560 | 0.00740 | 0.17428 | 2609.0 | 12.0 | 2551.0 | 32.0 | 2653 | 19 | 2653.0 | 19.0 | 3.8 | Single Age |
| 15HP77_9 | 660 | 12.80 | 11.80000 | 0.25000 | 0.48760 | 0.00870 | 0.79844 | 2587.0 | 20.0 | 2559.0 | 38.0 | 2604 | 22 | 2604.0 | 22.0 | 1.7 | Single Age |
| 15HP77_10 | 106.6 | 0.76 | 1.32600 | 0.02300 | 0.13800 | 0.00220 | 0.20929 | 856.0 | 10.0 | 833.0 | 12.0 | 893 | 46 | 833.0 | 12.0 | 2.7 | Single Age |
| 15HP77_11 | 861 | 3.58 | 1.52900 | 0.02100 | 0.15400 | 0.00560 | 0.65112 | 942.1 | 8.6 | 923.0 | 31.0 | 1026 | 55 | 1026.0 | 55.0 | 10.0 | Rim |
| 15HP77_11 | 492.1 | 1.35 | 3.41500 | 0.04900 | 0.25740 | 0.00370 | 0.52909 | 1507.0 | 11.0 | 1477.0 | 19.0 | 1530 | 23 | 1530.0 | 23.0 | 3.5 | Core |
| 15HP77_12 | 488 | 3.13 | 1.59000 | 0.02000 | 0.16030 | 0.00180 | 0.61231 | 965.8 | 8.0 | 958.1 | 9.9 | 984 | 22 | 984.0 | 22.0 | 2.6 | Single Age |
| 15HP77_13 | 107 | 0.94 | 1.10000 | 0.03600 | 0.12300 | 0.00250 | 0.43908 | 753.0 | 17.0 | 747.0 | 14.0 | 771 | 61 | 747.0 | 14.0 | 0.8 | Single Age |
| 15HP77_14 | 438 | 6.67 | 1.33300 | 0.01600 | 0.14160 | 0.00150 | 0.48926 | 859.7 | 7.2 | 853.4 | 8.6 | 873 | 24 | 873.0 | 24.0 | 2.2 | Single Age |
| 15HP77_15 | 118.8 | 1.03 | 1.44800 | 0.03300 | 0.15170 | 0.00340 | 0.50935 | 908.0 | 14.0 | 910.0 | 19.0 | 887 | 45 | 887.0 | 45.0 | 2.6 | Single Age |
| 15HP77_16 | 311 | 2.94 | 1.09700 | 0.02600 | 0.12320 | 0.00250 | 0.67282 | 751.0 | 12.0 | 749.0 | 15.0 | 738 | 40 | 749.0 | 15.0 | 0.3 | Single Age |
| 15HP77_17 | 531 | 5.08 | - | - | - | - | - | - | - | - | - | 2474 | 20 | - | - | - | Single Age |
| 15HP77_18 | 362 | 0.88 | 5.15000 | 0.10000 | 0.33120 | 0.00770 | 0.84376 | 1844.0 | 17.0 | 1843.0 | 37.0 | 1859 | 18 | 1859.0 | 18.0 | 0.9 | Single Age |
| 15HP77_19 | 4.43 | 0.84 | 9.30000 | 1.10000 | 0.38300 | 0.03500 | 0.55165 | 2390.0 | 110.0 | 2080.0 | 160.0 | 2630 | 180 | 2630.0 | 180.0 | 20.9 | Single Age |
| 15HP77_20 | 48.9 | 1.08 | 1.41100 | 0.06900 | 0.09690 | 0.00400 | 0.20717 | 890.0 | 30.0 | 596.0 | 23.0 | 1700 | 100 | DISC | DISC | 33.0 | Single Age |
| 15HP77_21 | 86.2 | 1.54 | 8.88000 | 0.26000 | 0.41700 | 0.01300 | 0.77818 | 2330.0 | 30.0 | 2259.0 | 55.0 | 2387 | 37 | 2387.0 | 37.0 | 5.4 | Single Age |
| 15HP77_22 | 103.3 | 0.62 | 10.66000 | 0.11000 | 0.47340 | 0.00480 | 0.45488 | 2494.3 | 9.6 | 2498.0 | 21.0 | 2482 | 19 | 2482.0 | 19.0 | 0.6 | Single Age |
| 15HP77_23 | 480 | 1.85 | 1.37600 | 0.03400 | 0.14500 | 0.00380 | 0.55659 | 882.0 | 16.0 | 873.0 | 21.0 | 887 | 46 | 887.0 | 46.0 | 1.6 | Single Age |
| 15HP77_24 | 187 | 5.52 | 0.74700 | 0.03200 | 0.08980 | 0.00370 | 0.44164 | 566.0 | 19.0 | 554.0 | 22.0 | 606 | 92 | 554.0 | 22.0 | 2.1 | Rim |
| 15HP77_24 | 30.4 | 0.62 | 0.93100 | 0.07100 | 0.10640 | 0.00400 | 0.16831 | 663.0 | 38.0 | 651.0 | 23.0 | 680 | 160 | 651.0 | 23.0 | 1.8 | Core |
| 15HP77_25 | 27.8 | 0.37 | 10.80000 | 0.28000 | 0.47500 | 0.01400 | 0.61352 | 2504.0 | 24.0 | 2502.0 | 63.0 | 2492 | 43 | 2492.0 | 43.0 | 0.4 | Single Age |
| 15HP77_26 | 459 | 2.18 | - | - | - | - | - | - | - | - | - | 2220 | 100 | - | - | - | Single Age |
| 15HP77_27 | 87.9 | 1.34 | 6.55000 | 0.13000 | 0.37930 | 0.00750 | 0.56130 | 2057.0 | 18.0 | 2072.0 | 35.0 | 2043 | 34 | 2043.0 | 34.0 | 1.4 | Single Age |
| 15HP77_28 | 296 | 1.96 | 11.89000 | 0.11000 | 0.47810 | 0.00460 | 0.64641 | 2595.2 | 8.7 | 2518.0 | 20.0 | 2642 | 13 | 2642.0 | 13.0 | 4.7 | Single Age |
| 15HP77_29 | 71.8 | 1.14 | 2.86000 | 0.04900 | 0.24060 | 0.00340 | 0.04172 | 1370.0 | 13.0 | 1389.0 | 18.0 | 1327 | 42 | 1327.0 | 42.0 | 4.7 | Single Age |
| 15HP77_30 | 99.9 | 0.85 | 1.15700 | 0.02700 | 0.13080 | 0.00250 | 0.45272 | 781.0 | 13.0 | 792.0 | 14.0 | 706 | 50 | 792.0 | 14.0 | 1.4 | Single Age |
| 15HP77_31 | 326 | 2.41 | 10.26700 | 0.09200 | 0.44810 | 0.00430 | 0.49836 | 2459.6 | 8.2 | 2386.0 | 19.0 | 2512 | 16 | 2512.0 | 16.0 | 5.0 | Single Age |
| 15HP77_32 | 381 | 1.00 | 1.60100 | 0.02000 | 0.16150 | 0.00180 | 0.50819 | 970.2 | 7.7 | 965.0 | 10.0 | 967 | 23 | 967.0 | 23.0 | 0.2 | Single Age |
| 15HP77_33 | 637 | 2.81 | 1.60100 | 0.02300 | 0.15880 | 0.00230 | 0.21185 | 970.1 | 9.0 | 950.0 | 13.0 | 1020 | 29 | 1020.0 | 29.0 | 6.9 | Single Age |
| 15HP77_34 | 135.5 | 1.08 | 1.22300 | 0.02800 | 0.13230 | 0.00190 | 0.44798 | 810.0 | 13.0 | 801.0 | 11.0 | 850 | 44 | 801.0 | 11.0 | 1.1 | Single Age |
| 15HP77_35 | 130.6 | 1.24 | 1.17600 | 0.03900 | 0.12810 | 0.00430 | 0.15835 | 789.0 | 18.0 | 782.0 | 23.0 | 822 | 67 | 782.0 | 23.0 | 0.9 | Single Age |
| 15HP77_36 | 301 | 3.03 | 4.47600 | 0.06500 | 0.30570 | 0.00460 | 0.69258 | 1727.0 | 12.0 | 1719.0 | 23.0 | 1712 | 23 | 1712.0 | 23.0 | 0.4 | Single Age |
| 15HP77_37 | 139 | 0.92 | - | - | - | - | - | - | - | - | - | 1095 | 38 | - | - | - | Single Age |
| 15HP77_38 | 238.3 | 1.71 | 7.44400 | 0.07300 | 0.40010 | 0.00470 | 0.63073 | 2165.5 | 8.8 | 2169.0 | 22.0 | 2153 | 16 | 2153.0 | 16.0 | 0.7 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP77_39 | 792 | 6.20 | 1.56400 | 0.01400 | 0.15910 | 0.00140 | 0.59911 | 955.8 | 5.5 | 952.6 | 7.9 | 958 | 16 | 958.0 | 16.0 | 0.6 | Single Age |
| 15HP77_40 | 55.2 | 19.80 | 0.98000 | 0.04900 | 0.11180 | 0.00360 | 0.29612 | 691.0 | 25.0 | 683.0 | 21.0 | 760 | 130 | 683.0 | 21.0 | 1.2 | Single Age |
| 15HP77_41 | 446 | 2.11 | 9.62000 | 0.11000 | 0.43250 | 0.00540 | 0.52880 | 2399.0 | 11.0 | 2316.0 | 24.0 | 2469 | 18 | 2469.0 | 18.0 | 6.2 | Single Age |
| 15HP77_42 | 1335 | 2.82 | 9.38000 | 0.19000 | 0.42600 | 0.00910 | 0.68789 | 2375.0 | 19.0 | 2287.0 | 41.0 | 2454 | 28 | 2454.0 | 28.0 | 6.8 | Single Age |
| 15HP77_43 | 411 | 6.08 | 5.14300 | 0.09000 | 0.33380 | 0.00720 | 0.70830 | 1842.0 | 15.0 | 1861.0 | 35.0 | 1809 | 29 | 1809.0 | 29.0 | 2.9 | Single Age |
| 15HP77_44 | 209 | 1.38 | 1.23800 | 0.02100 | 0.13600 | 0.00170 | 0.56622 | 819.8 | 9.8 | 822.1 | 9.7 | 828 | 32 | 822.1 | 9.7 | 0.3 | Single Age |
| 15HP77_45 | 349 | 8.19 | 5.06300 | 0.06000 | 0.33090 | 0.00570 | 0.50574 | 1830.0 | 10.0 | 1842.0 | 28.0 | 1818 | 33 | 1818.0 | 33.0 | 1.3 | Single Age |
| 15HP77_46 | 650 | 24.70 | 0.82900 | 0.01300 | 0.10020 | 0.00110 | 0.09153 | 612.4 | 7.1 | 615.3 | 6.7 | 595 | 37 | 615.3 | 6.7 | 0.5 | Single Age |
| 15HP77_47 | 154 | 0.48 | 0.66400 | 0.01700 | 0.08390 | 0.00170 | 0.10380 | 518.0 | 11.0 | 519.0 | 9.9 | 501 | 63 | 519.0 | 9.9 | 0.2 | Single Age |
| 15HP77_48 | 66.4 | 0.50 | 0.67300 | 0.01900 | 0.08230 | 0.00170 | 0.05545 | 524.0 | 11.0 | 510.0 | 10.0 | 560 | 82 | 510.0 | 10.0 | 2.7 | Single Age |
| 15HP77_49 | 2100 | 7.58 | 0.82700 | 0.03600 | 0.09960 | 0.00180 | 0.73856 | 612.0 | 20.0 | 612.0 | 10.0 | 619 | 70 | 612.0 | 10.0 | 0.0 | Rim |
| 15HP77_49 | 327 | 3.22 | 1.71300 | 0.03400 | 0.17200 | 0.00230 | 0.65794 | 1021.0 | 16.0 | 1023.0 | 12.0 | 982 | 38 | 982.0 | 38.0 | 4.2 | Core |
| 15HP77_50 | 1839 | 8.21 | 1.12500 | 0.02000 | 0.12720 | 0.00220 | 0.19572 | 765.3 | 9.5 | 772.0 | 12.0 | 774 | 34 | 772.0 | 12.0 | 0.9 | Rim |
| 15HP77_50 | 769 | 2.13 | 1.69900 | 0.02900 | 0.17050 | 0.00300 | 0.79612 | 1008.0 | 11.0 | 1015.0 | 17.0 | 970 | 23 | 970.0 | 23.0 | 4.6 | Core |
| 15HP77_51 | 483 | 4.93 | 10.08000 | 0.15000 | 0.45910 | 0.00760 | 0.78550 | 2441.0 | 14.0 | 2435.0 | 34.0 | 2433 | 18 | 2433.0 | 18.0 | 0.1 | Single Age |
| 15HP77_52 | 23.7 | 1.48 | 1.57600 | 0.07700 | 0.15950 | 0.00530 | 0.28005 | 953.0 | 30.0 | 953.0 | 30.0 | 1000 | 100 | 1000.0 | 100.0 | 4.7 | Single Age |
| 15HP77_53 | 243.6 | 1.69 | 13.80000 | 0.49000 | 0.47570 | 0.00940 | 0.76737 | 2738.0 | 35.0 | 2507.0 | 41.0 | 2914 | 38 | 2914.0 | 38.0 | 14.0 | Single Age |
| 15HP77_54 | 414 | 1.62 | 4.40700 | 0.04100 | 0.30440 | 0.00330 | 0.59095 | 1713.0 | 7.8 | 1713.0 | 16.0 | 1709 | 16 | 1709.0 | 16.0 | 0.2 | Single Age |
| 15HP77_55 | 79.1 | 6.83 | 1.19200 | 0.04100 | 0.12960 | 0.00330 | 0.28445 | 798.0 | 19.0 | 785.0 | 19.0 | 798 | 70 | 785.0 | 19.0 | 1.6 | Single Age |
| 15HP77_56 | 219 | 1.07 | 10.04000 | 0.15000 | 0.44980 | 0.00790 | 0.75504 | 2439.0 | 14.0 | 2392.0 | 35.0 | 2473 | 17 | 2473.0 | 17.0 | 3.3 | Single Age |
| 15HP77_57 | 133.9 | 1.53 | 10.65000 | 0.13000 | 0.46550 | 0.00490 | 0.45780 | 2492.0 | 11.0 | 2463.0 | 22.0 | 2524 | 22 | 2524.0 | 22.0 | 2.4 | Single Age |
| 15HP77_58 | 674 | 2.55 | 6.02000 | 0.14000 | 0.27430 | 0.00740 | 0.81521 | 1978.0 | 20.0 | 1562.0 | 37.0 | 2452 | 20 | DISC | DISC | 36.3 | Single Age |
| 15HP77_59 | 879 | 11.62 | 3.60400 | 0.05800 | 0.27080 | 0.00470 | 0.03421 | 1550.0 | 13.0 | 1545.0 | 24.0 | 1567 | 29 | 1567.0 | 29.0 | 1.4 | Single Age |
| 15HP77_60 | 399.4 | 4.19 | 11.75000 | 0.13000 | 0.49100 | 0.00590 | 0.45367 | 2584.0 | 10.0 | 2575.0 | 26.0 | 2599 | 18 | 2599.0 | 18.0 | 0.9 | Rim |
| 15HP77_60 | 318.2 | 5.03 | 13.20000 | 0.28000 | 0.51800 | 0.01700 | 0.86386 | 2693.0 | 20.0 | 2689.0 | 70.0 | 2681 | 21 | 2681.0 | 21.0 | 0.3 | Core |
| 15HP77_61 | 498 | 1.23 | 1.63000 | 0.02200 | 0.16570 | 0.00210 | 0.62327 | 982.3 | 8.2 | 988.0 | 12.0 | 976 | 23 | 976.0 | 23.0 | 1.2 | Single Age |
| 15HP77_62 | 799 | 2.41 | 1.91900 | 0.02000 | 0.18440 | 0.00220 | 0.60571 | 1087.2 | 7.0 | 1091.0 | 12.0 | 1090 | 21 | 1090.0 | 21.0 | 0.1 | Single Age |
| 15HP77_63 | 593 | 12.99 | 1.63100 | 0.03300 | 0.16670 | 0.00250 | 0.55340 | 981.0 | 13.0 | 994.0 | 14.0 | 996 | 37 | 996.0 | 37.0 | 0.2 | Rim |
| 15HP77_63 | 318.4 | 3.26 | 3.68700 | 0.08000 | 0.27630 | 0.00610 | 0.51585 | 1568.0 | 17.0 | 1573.0 | 31.0 | 1573 | 47 | 1573.0 | 47.0 | 0.0 | Core |
| 15HP77_64 | 199 | 1.21 | 1.27000 | 0.02300 | 0.13700 | 0.00190 | 0.56241 | 831.0 | 10.0 | 828.0 | 11.0 | 845 | 32 | 828.0 | 11.0 | 0.4 | Single Age |
| 15HP77_65 | 60 | 0.84 | 1.33900 | 0.06800 | 0.12830 | 0.00370 | 0.02290 | 858.0 | 30.0 | 778.0 | 21.0 | 1040 | 110 | 778.0 | 21.0 | 9.3 | Single Age |
| 15HP77_66 | 518 | 1.41 | 1.92800 | 0.02200 | 0.18440 | 0.00180 | 0.32626 | 1090.4 | 7.5 | 1090.9 | 9.6 | 1079 | 23 | 1079.0 | 23.0 | 1.1 | Single Age |
| 15HP77_67 | 254.4 | 1.38 | 1.29100 | 0.02600 | 0.13340 | 0.00220 | 0.02813 | 841.0 | 12.0 | 807.0 | 12.0 | 923 | 45 | 807.0 | 12.0 | 4.0 | Single Age |
| 15HP77_68 | 388 | 2.60 | 1.60400 | 0.02300 | 0.16390 | 0.00180 | 0.61149 | 971.3 | 8.9 | 978.0 | 10.0 | 957 | 27 | 957.0 | 27.0 | 2.2 | Single Age |
| 15HP77_69 | 492 | 1.53 | 0.91800 | 0.03800 | 0.07890 | 0.00210 | 0.47257 | 664.0 | 21.0 | 489.0 | 12.0 | 1277 | 79 | DISC | DISC | 26.4 | Single Age |
| 15HP77_70 | 64 | 1.31 | 1.91000 | 0.14000 | 0.12640 | 0.00350 | 0.73966 | 1071.0 | 46.0 | 767.0 | 20.0 | 1745 | 97 | DISC | DISC | 28.4 | Single Age |
| 15HP77_71 | 188 | 1.52 | 5.24200 | 0.09300 | 0.33590 | 0.00670 | 0.58187 | 1860.0 | 16.0 | 1866.0 | 32.0 | 1870 | 32 | 1870.0 | 32.0 | 0.2 | Single Age |
| 15HP77_72 | 791 | 11.24 | 7.40000 | 0.10000 | 0.36370 | 0.00560 | 0.85599 | 2159.0 | 12.0 | 2002.0 | 27.0 | 2336 | 13 | 2336.0 | 13.0 | 14.3 | Single Age |
| 15HP77_73 | 614 | 2.28 | - | - | - | - | - | - | - | - | - | 832 | 28 | - | - | - | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP77_74 | 285 | 6.66 | 0.14290 | 0.00890 | 0.02032 | 0.00051 | 0.08212 | 136.8 | 8.2 | 129.7 | 3.2 | 260 | 140 | 129.7 | 3.2 | 5.2 | Single Age |
| 15HP77_75 | 184 | 1.17 | 1.40700 | 0.03600 | 0.14460 | 0.00260 | 0.24937 | 895.0 | 15.0 | 870.0 | 14.0 | 959 | 53 | 959.0 | 53.0 | 9.3 | Single Age |
| 15HP77_76 | 36.9 | 1.75 | 1.52600 | 0.06500 | 0.15490 | 0.00410 | 0.29221 | 937.0 | 26.0 | 928.0 | 23.0 | 933 | 87 | 933.0 | 87.0 | 0.5 | Single Age |
| 15HP77_77 | 820 | 11.00 | 1.46200 | 0.01900 | 0.15390 | 0.00200 | 0.66728 | 914.2 | 7.7 | 924.0 | 12.0 | 909 | 20 | 909.0 | 20.0 | 1.7 | Single Age |
| 15HP77_78 | 1420 | 8.70 | 0.64100 | 0.01900 | 0.07990 | 0.00230 | 0.70296 | 503.0 | 11.0 | 495.0 | 14.0 | 531 | 43 | 495.0 | 14.0 | 1.6 | Rim |
| 15HP77_78 | 142 | 1.34 | 1.27600 | 0.03500 | 0.13630 | 0.00260 | 0.41067 | 836.0 | 15.0 | 823.0 | 15.0 | 872 | 52 | 823.0 | 15.0 | 1.6 | Core |
| 15HP77_79 | 18.4 | 3.58 | 1.42200 | 0.08000 | 0.13700 | 0.00530 | 0.33166 | 903.0 | 35.0 | 826.0 | 30.0 | 1100 | 120 | 826.0 | 30.0 | 8.5 | Single Age |
| 15HP77_80 | 252 | 0.58 | 0.65700 | 0.01400 | 0.08360 | 0.00140 | 0.39286 | 511.9 | 8.6 | 517.5 | 8.1 | 493 | 44 | 517.5 | 8.1 | 1.1 | Single Age |
| 15HP77_81 | 290 | 5.48 | 1.43400 | 0.02400 | 0.14470 | 0.00190 | 0.50912 | 902.3 | 9.9 | 871.0 | 11.0 | 965 | 31 | 965.0 | 31.0 | 9.7 | Single Age |
| 15HP77_82 | 219 | 1.91 | 7.10000 | 0.11000 | 0.38720 | 0.00530 | 0.80645 | 2122.0 | 14.0 | 2109.0 | 25.0 | 2146 | 17 | 2146.0 | 17.0 | 1.7 | Single Age |
| 15HP77_83 | 347 | 23.20 | 1.63100 | 0.03200 | 0.16600 | 0.00340 | 0.01583 | 985.0 | 12.0 | 990.0 | 19.0 | 959 | 59 | 959.0 | 59.0 | 3.2 | Rim |
| 15HP77_83 | 56.6 | 1.33 | 9.87000 | 0.24000 | 0.44100 | 0.01300 | 0.59434 | 2422.0 | 23.0 | 2351.0 | 60.0 | 2457 | 41 | 2457.0 | 41.0 | 4.3 | Core |
| 15HP77_84 | 369 | 1.16 | 9.96600 | 0.08800 | 0.44500 | 0.00420 | 0.77399 | 2431.0 | 8.2 | 2375.0 | 19.0 | 2473 | 12 | 2473.0 | 12.0 | 4.0 | Single Age |
| 15HP77_85 | 47.5 | 1.80 | 1.45100 | 0.04700 | 0.14710 | 0.00310 | 0.18061 | 912.0 | 19.0 | 884.0 | 17.0 | 933 | 67 | 933.0 | 67.0 | 5.3 | Single Age |
| 15HP77_86 | 357.5 | 2.08 | 0.75000 | 0.02000 | 0.09420 | 0.00270 | 0.36599 | 568.0 | 12.0 | 580.0 | 16.0 | 543 | 69 | 580.0 | 16.0 | 2.1 | Single Age |
| 15HP77_87 | 23 | 1.18 | 10.75000 | 0.19000 | 0.46050 | 0.00950 | 0.46572 | 2502.0 | 17.0 | 2446.0 | 43.0 | 2528 | 33 | 2528.0 | 33.0 | 3.2 | Single Age |
| 15HP77_88 | 133.5 | 2.28 | 2.81500 | 0.04600 | 0.23580 | 0.00410 | 0.54455 | 1360.0 | 12.0 | 1364.0 | 21.0 | 1345 | 30 | 1345.0 | 30.0 | 1.4 | Single Age |
| 15HP77_89 | 1510 | 9.60 | 4.44000 | 0.06600 | 0.25790 | 0.00360 | 0.72857 | 1721.0 | 12.0 | 1479.0 | 19.0 | 2031 | 18 | 2031.0 | 18.0 | 27.2 | Single Age |
| 15HP77_90 | 129 | 0.76 | 1.27600 | 0.03000 | 0.13070 | 0.00250 | 0.33968 | 837.0 | 13.0 | 792.0 | 14.0 | 947 | 45 | 792.0 | 14.0 | 5.4 | Single Age |
| 15HP77_91 | 427 | 1.67 | 1.42100 | 0.01400 | 0.15020 | 0.00140 | 0.29523 | 897.4 | 5.9 | 902.0 | 8.1 | 898 | 23 | 898.0 | 23.0 | 0.4 | Single Age |
| 15HP77_92 | 650 | 6.06 | 2.25400 | 0.03000 | 0.20600 | 0.00260 | 0.59928 | 1197.6 | 9.4 | 1207.0 | 14.0 | 1208 | 28 | 1208.0 | 28.0 | 0.1 | Single Age |
| 15HP77_93 | 36.3 | 6.67 | 0.77000 | 0.03400 | 0.09730 | 0.00340 | 0.34748 | 579.0 | 19.0 | 598.0 | 20.0 | 522 | 95 | 598.0 | 20.0 | 3.3 | Single Age |
| 15HP77_95 | 210 | 1.92 | 1.62900 | 0.02600 | 0.16550 | 0.00230 | 0.57278 | 981.0 | 10.0 | 987.0 | 13.0 | 976 | 30 | 976.0 | 30.0 | 1.1 | Single Age |
| 15HP77_96 | 212.5 | 3.06 | 1.36500 | 0.01800 | 0.14740 | 0.00190 | 0.37250 | 873.2 | 7.9 | 886.0 | 11.0 | 857 | 32 | 857.0 | 32.0 | 3.4 | Single Age |
| 15HP77_97 | 193.3 | 2.63 | 25.86000 | 0.23000 | 0.69060 | 0.00700 | 0.54158 | 3340.8 | 8.5 | 3384.0 | 27.0 | 3324 | 16 | 3324.0 | 16.0 | 1.8 | Single Age |
| 15HP77_98 | 313 | 1.22 | 10.48000 | 0.13000 | 0.46530 | 0.00590 | 0.49625 | 2477.0 | 12.0 | 2462.0 | 26.0 | 2513 | 23 | 2513.0 | 23.0 | 2.0 | Single Age |
| 15HP77_99 | 382.7 | 1.41 | 3.08300 | 0.03400 | 0.24970 | 0.00300 | 0.57646 | 1428.0 | 8.6 | 1437.0 | 15.0 | 1427 | 18 | 1427.0 | 18.0 | 0.7 | Single Age |
| 15HP77_100 | 431 | 11.28 | 5.03500 | 0.04500 | 0.32960 | 0.00390 | 0.54708 | 1824.7 | 7.5 | 1836.0 | 19.0 | 1829 | 19 | 1829.0 | 19.0 | 0.4 | Single Age |
| 15HP77_101 | 224.5 | 0.86 | 10.51000 | 0.12000 | 0.47480 | 0.00590 | 0.56993 | 2482.0 | 11.0 | 2504.0 | 26.0 | 2478 | 18 | 2478.0 | 18.0 | 1.0 | Single Age |
| 15HP77_102 | 241 | 0.71 | 1.74200 | 0.02200 | 0.17410 | 0.00190 | 0.47346 | 1024.8 | 7.8 | 1035.0 | 10.0 | 1007 | 24 | 1007.0 | 24.0 | 2.8 | Single Age |
| 15HP77_104 | 265.3 | 2.18 | 1.62400 | 0.03200 | 0.16320 | 0.00270 | 0.58380 | 981.0 | 13.0 | 974.0 | 15.0 | 1004 | 32 | 1004.0 | 32.0 | 3.0 | Single Age |
| 15HP77_105 | 108.2 | 1.31 | 1.28100 | 0.02600 | 0.14010 | 0.00220 | 0.11755 | 838.0 | 11.0 | 845.0 | 13.0 | 807 | 59 | 845.0 | 13.0 | 0.8 | Single Age |
| 15HP77_106 | 321 | 1.60 | 3.18500 | 0.03600 | 0.25510 | 0.00280 | 0.58238 | 1452.8 | 8.7 | 1465.0 | 14.0 | 1431 | 21 | 1431.0 | 21.0 | 2.4 | Single Age |
| 15HP77_107 | 48.1 | 1.06 | 1.23000 | 0.03700 | 0.13540 | 0.00290 | 0.26432 | 817.0 | 17.0 | 820.0 | 16.0 | 827 | 64 | 820.0 | 16.0 | 0.4 | Single Age |
| 15HP77_108 | 421 | 3.09 | 13.99000 | 0.23000 | 0.48860 | 0.00980 | 0.52758 | 2748.0 | 16.0 | 2564.0 | 42.0 | 2876 | 33 | 2876.0 | 33.0 | 10.8 | Single Age |
| 15HP77_109 | 148.7 | 1.15 | 0.71700 | 0.02200 | 0.08720 | 0.00150 | 0.00988 | 544.0 | 11.0 | 538.7 | 9.1 | 533 | 60 | 538.7 | 9.1 | 1.0 | Single Age |
| 15HP77_110 | 186 | 2.17 | 1.90900 | 0.02800 | 0.18220 | 0.00220 | 0.39626 | 1084.6 | 9.4 | 1079.0 | 12.0 | 1086 | 27 | 1086.0 | 27.0 | 0.6 | Single Age |
| 15HP77_111 | 533 | 5.92 | 1.65000 | 0.02700 | 0.16710 | 0.00360 | 0.63456 | 990.0 | 10.0 | 996.0 | 20.0 | 965 | 34 | 965.0 | 34.0 | 3.2 | Single Age |
| 15HP77_112 | 52.9 | 0.99 | 1.35800 | 0.04300 | 0.13620 | 0.00360 | 0.21326 | 869.0 | 18.0 | 823.0 | 20.0 | 944 | 72 | 823.0 | 20.0 | 5.3 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP77_113 | 89.4 | 3.41 | 2.36000 | 0.13000 | 0.20200 | 0.01300 | 0.75480 | 1240.0 | 45.0 | 1183.0 | 70.0 | 1385 | 81 | 1385.0 | 81.0 | 14.6 | Single Age |
| 15HP77_114 | 215 | 2.44 | 1.38300 | 0.02100 | 0.14510 | 0.00170 | 0.37522 | 880.7 | 9.1 | 873.1 | 9.7 | 867 | 30 | 867.0 | 30.0 | 0.7 | Single Age |
| 15HP77_115 | 628 | 4.14 | 0.90230 | 0.00960 | 0.10670 | 0.00110 | 0.42840 | 655.0 | 5.0 | 653.3 | 6.5 | 641 | 24 | 653.3 | 6.5 | 0.3 | Single Age |
| 15HP77_116 | 356 | 0.93 | 10.54800 | 0.09000 | 0.47010 | 0.00440 | 0.27361 | 2483.5 | 7.9 | 2484.0 | 19.0 | 2473 | 16 | 2473.0 | 16.0 | 0.4 | Single Age |
| 15HP77_117 | 68.3 | 0.95 | 8.51000 | 0.37000 | 0.35700 | 0.01100 | 0.61154 | 2280.0 | 39.0 | 1968.0 | 52.0 | 2534 | 51 | 2534.0 | 51.0 | 22.3 | Single Age |
| 15HP77_118 | 343 | 1.53 | 13.39000 | 0.12000 | 0.53060 | 0.00720 | 0.02371 | 2707.3 | 8.5 | 2743.0 | 30.0 | 2678 | 17 | 2678.0 | 17.0 | 2.4 | Single Age |
| 15HP77_119 | 77.4 | 2.14 | 2.12700 | 0.09100 | 0.19730 | 0.00940 | 0.51974 | 1155.0 | 29.0 | 1160.0 | 50.0 | 1150 | 85 | 1150.0 | 85.0 | 0.9 | Single Age |
| 15HP77_120 | 302 | 1.17 | 1.78100 | 0.01900 | 0.17540 | 0.00190 | 0.26339 | 1038.1 | 6.8 | 1042.0 | 10.0 | 1034 | 27 | 1034.0 | 27.0 | 0.8 | Single Age |
| 15HP80_1 | 0.0034 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| 15HP80_2 | -4.538E-05 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| 15HP80_3 | 770 | 7.22 | 27.44000 | 0.97000 | 0.69400 | 0.01600 | 0.88389 | 3395.0 | 36.0 | 3394.0 | 62.0 | 3403 | 29 | 3403.0 | 29.0 | 0.3 | Single Age |
| 15HP80_4 | 135 | 1.87 | 1.51400 | 0.03700 | 0.15060 | 0.00220 | 0.02782 | 934.0 | 15.0 | 906.0 | 13.0 | 991 | 53 | 991.0 | 53.0 | 8.6 | Single Age |
| 15HP80_5 | 52.4 | 1.23 | 4.00000 | 0.11000 | 0.28890 | 0.00670 | 0.40549 | 1635.0 | 22.0 | 1635.0 | 34.0 | 1631 | 53 | 1631.0 | 53.0 | 0.2 | Single Age |
| 15HP80_6 | 631 | 7.99 | 1.21300 | 0.05900 | 0.12360 | 0.00510 | 0.91929 | 813.0 | 25.0 | 751.0 | 29.0 | 971 | 29 | 751.0 | 29.0 | 7.6 | Single Age |
| 15HP80_7 | 31.7 | 1.26 | 0.24700 | 0.02700 | 0.02140 | 0.00140 | 0.10870 | 220.0 | 22.0 | 136.5 | 8.7 | 1260 | 250 | DISC | DISC | 38.0 | Single Age |
| 15HP80_8 | 184.5 | 0.80 | 1.26200 | 0.05000 | 0.13890 | 0.00420 | 0.73319 | 825.0 | 23.0 | 838.0 | 24.0 | 786 | 54 | 838.0 | 24.0 | 1.6 | Single Age |
| 15HP80_9 | 157 | 1.99 | 3.00600 | 0.07500 | 0.22890 | 0.00540 | 0.58543 | 1412.0 | 18.0 | 1328.0 | 28.0 | 1533 | 37 | 1533.0 | 37.0 | 13.4 | Single Age |
| 15HP80_10 | 560 | 2.51 | 1.41500 | 0.02000 | 0.14600 | 0.00170 | 0.30919 | 894.6 | 8.4 | 878.5 | 9.4 | 922 | 32 | 922.0 | 32.0 | 4.7 | Single Age |
| 15HP80_11 | 491 | 4.93 | 1.34000 | 0.02200 | 0.14500 | 0.00230 | 0.60303 | 863.6 | 9.3 | 873.0 | 13.0 | 863 | 26 | 863.0 | 26.0 | 1.2 | Single Age |
| 15HP80_12 | 108.2 | 3.23 | 10.37000 | 0.12000 | 0.46890 | 0.00600 | 0.64000 | 2467.0 | 10.0 | 2478.0 | 26.0 | 2456 | 20 | 2456.0 | 20.0 | 0.9 | Single Age |
| 15HP80_13 | 1108 | 8.94 | 1.34300 | 0.01400 | 0.14310 | 0.00120 | 0.51023 | 865.1 | 6.2 | 862.3 | 7.0 | 871 | 21 | 871.0 | 21.0 | 1.0 | Single Age |
| 15HP80_14 | -4.427E-05 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| 15HP80_15 | 173 | 0.34 | 1.25200 | 0.03200 | 0.13700 | 0.00230 | 0.30379 | 824.0 | 14.0 | 827.0 | 13.0 | 814 | 53 | 827.0 | 13.0 | 0.4 | Single Age |
| 15HP80_16 | 2830 | 7.31 | 1.28800 | 0.01300 | 0.13690 | 0.00160 | 0.67950 | 840.2 | 5.9 | 827.0 | 8.9 | 876 | 17 | 827.0 | 8.9 | 1.6 | Single Age |
| 15HP80_18 | 207 | 0.81 | 11.84000 | 0.14000 | 0.49020 | 0.00510 | 0.61309 | 2591.0 | 11.0 | 2574.0 | 22.0 | 2601 | 17 | 2601.0 | 17.0 | 1.0 | Single Age |
| 15HP80_19 | 150 | 1.20 | 1.15200 | 0.02500 | 0.12920 | 0.00200 | 0.20352 | 778.0 | 12.0 | 783.0 | 11.0 | 765 | 49 | 783.0 | 11.0 | 0.6 | Single Age |
| 15HP80_20 | 85 | 0.62 | 0.29400 | 0.01500 | 0.00523 | 0.00040 | 0.06378 | 260.0 | 12.0 | 33.6 | 2.6 | 3890 | 150 | DISC | DISC | 87.1 | Single Age |
| 15HP80_21 | 177.4 | 3.36 | 1.46900 | 0.02800 | 0.15540 | 0.00230 | 0.39326 | 918.0 | 11.0 | 931.0 | 13.0 | 885 | 40 | 885.0 | 40.0 | 5.2 | Single Age |
| 15HP80_22 | 159.8 | 1.47 | 10.15000 | 0.23000 | 0.45800 | 0.01100 | 0.59011 | 2447.0 | 21.0 | 2429.0 | 48.0 | 2463 | 34 | 2463.0 | 34.0 | 1.4 | Single Age |
| 15HP80_23 | 400 | 1.31 | 1.68400 | 0.02000 | 0.17020 | 0.00190 | 0.39360 | 1003.9 | 7.6 | 1013.0 | 11.0 | 1001 | 27 | 1001.0 | 27.0 | 1.2 | Single Age |
| 15HP80_24 | 145 | 1.38 | 1.16700 | 0.04500 | 0.12750 | 0.00240 | 0.00726 | 783.0 | 21.0 | 773.0 | 14.0 | 806 | 82 | 773.0 | 14.0 | 1.3 | Single Age |
| 15HP80_25 | 64.2 | 0.97 | 1.20900 | 0.03900 | 0.13040 | 0.00340 | 0.06616 | 803.0 | 18.0 | 790.0 | 19.0 | 827 | 81 | 790.0 | 19.0 | 1.6 | Single Age |
| 15HP80_26 | 538 | 14.80 | 3.05800 | 0.05800 | 0.24400 | 0.00430 | 0.75605 | 1420.0 | 14.0 | 1407.0 | 22.0 | 1434 | 23 | 1434.0 | 23.0 | 1.9 | Single Age |
| 15HP80_27 | 1062 | 18.86 | 0.76580 | 0.00840 | 0.09428 | 0.00073 | 0.38558 | 577.7 | 4.9 | 580.8 | 4.3 | 562 | 24 | 580.8 | 4.3 | 0.5 | Single Age |
| 15HP80_28 | 202 | 1.81 | 1.70600 | 0.03600 | 0.17270 | 0.00310 | 0.03694 | 1009.0 | 14.0 | 1027.0 | 17.0 | 974 | 46 | 974.0 | 46.0 | 5.4 | Single Age |
| 15HP80_29 | -4.239E-05 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| 15HP80_30 | 176 | 1.14 | 2.26000 | 0.03600 | 0.20180 | 0.00280 | 0.24873 | 1199.0 | 11.0 | 1184.0 | 15.0 | 1223 | 36 | 1223.0 | 36.0 | 3.2 | Single Age |
| 15HP80_31 | 126 | 0.99 | 1.67800 | 0.05500 | 0.16690 | 0.00530 | 0.67487 | 1001.0 | 20.0 | 994.0 | 29.0 | 1003 | 54 | 1003.0 | 54.0 | 0.9 | Single Age |
| 15HP80_32 | 291 | 1.43 | 1.14900 | 0.01600 | 0.12640 | 0.00150 | 0.41554 | 776.2 | 7.8 | 767.3 | 8.7 | 818 | 31 | 767.3 | 8.7 | 1.1 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP80_33 | 45.5 | 6.27 | 21.40000 | 2.20000 | 0.62500 | 0.06800 | 0.91164 | 3140.0 | 100.0 | 3140.0 | 260.0 | 3126 | 76 | 3126.0 | 76.0 | 0.4 | Single Age |
| 15HP80_34 | 380 | 4.57 | 1.17400 | 0.08500 | 0.12900 | 0.01500 | 0.71827 | 785.0 | 40.0 | 779.0 | 86.0 | 830 | 170 | DISC | DISC | 0.8 | Single Age |
| 15HP80_35 | 274 | 4.00 | 1.84800 | 0.03400 | 0.17540 | 0.00380 | 0.51724 | 1062.0 | 12.0 | 1041.0 | 21.0 | 1103 | 37 | 1103.0 | 37.0 | 5.6 | Single Age |
| 15HP80_36 | 442 | 4.78 | 1.65200 | 0.04000 | 0.16500 | 0.00360 | 0.81627 | 989.0 | 15.0 | 984.0 | 20.0 | 992 | 35 | 992.0 | 35.0 | 0.8 | Single Age |
| 15HP80_37 | 527 | 37.20 | 2.13000 | 0.11000 | 0.19510 | 0.00870 | 0.93013 | 1149.0 | 34.0 | 1146.0 | 47.0 | 1185 | 35 | 1185.0 | 35.0 | 3.3 | Single Age |
| 15HP80_38 | 58.4 | 4.27 | 3.12000 | 0.17000 | 0.24100 | 0.01400 | 0.40471 | 1434.0 | 43.0 | 1414.0 | 80.0 | 1510 | 130 | 1510.0 | 130.0 | 6.4 | Single Age |
| 15HP80_39 | 536 | 9.34 | 4.91700 | 0.09200 | 0.31660 | 0.00590 | 0.75972 | 1805.0 | 15.0 | 1772.0 | 29.0 | 1818 | 22 | 1818.0 | 22.0 | 2.5 | Single Age |
| 15HP80_40 | 52.6 | 1.19 | 1.50000 | 0.04800 | 0.14810 | 0.00370 | 0.19946 | 927.0 | 20.0 | 890.0 | 21.0 | 1059 | 75 | 1059.0 | 75.0 | 16.0 | Single Age |
| 15HP80_41 | 1120 | 3.03 | 1.31900 | 0.02100 | 0.14240 | 0.00240 | 0.79049 | 853.5 | 9.1 | 858.0 | 14.0 | 827 | 24 | 827.0 | 14.0 | 0.5 | Single Age |
| 15HP80_42 | 158 | 3.44 | 5.41000 | 0.19000 | 0.34000 | 0.01200 | 0.76933 | 1886.0 | 31.0 | 1883.0 | 58.0 | 1903 | 36 | 1903.0 | 36.0 | 1.1 | Single Age |
| 15HP80_43 | 388 | 2.45 | 1.64900 | 0.02900 | 0.16750 | 0.00310 | 0.73809 | 988.0 | 11.0 | 998.0 | 17.0 | 975 | 31 | 975.0 | 31.0 | 2.4 | Single Age |
| 15HP80_44 | 1530 | 13.40 | - | - | - | - | - | - | - | - | - | 475 | 34 | - | - | - | Single Age |
| 15HP80_45 | 863 | 1.60 | 3.59700 | 0.03900 | 0.26430 | 0.00310 | 0.65845 | 1548.2 | 8.5 | 1511.0 | 16.0 | 1594 | 17 | 1594.0 | 17.0 | 5.2 | Single Age |
| 15HP80_46 | 111 | 5.85 | 8.96000 | 0.36000 | 0.33600 | 0.02200 | 0.63741 | 2332.0 | 38.0 | 1860.0 | 110.0 | 2737 | 82 | DISC | DISC | 32.0 | Single Age |
| 15HP80_47 | 183 | 0.61 | 1.28900 | 0.03300 | 0.13740 | 0.00230 | 0.27620 | 839.0 | 15.0 | 830.0 | 13.0 | 856 | 50 | 830.0 | 13.0 | 1.1 | Single Age |
| 15HP80_48 | 783 | 3.73 | 0.60800 | 0.01200 | 0.07740 | 0.00130 | 0.55546 | 483.5 | 7.2 | 480.3 | 7.6 | 473 | 43 | 480.3 | 7.6 | 0.7 | Single Age |
| 15HP80_49 | 0.0123 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| 15HP80_50 | 160 | 2.73 | 3.04000 | 0.12000 | 0.20430 | 0.00710 | 0.86710 | 1409.0 | 29.0 | 1197.0 | 38.0 | 1731 | 34 | DISC | DISC | 30.8 | Single Age |
| 15HP80_51 | 310 | 1.69 | 2.02900 | 0.03000 | 0.19100 | 0.00260 | 0.60312 | 1124.0 | 10.0 | 1127.0 | 14.0 | 1108 | 28 | 1108.0 | 28.0 | 1.7 | Single Age |
| 15HP80_52 | 564 | 2.11 | 5.00000 | 0.10000 | 0.32040 | 0.00770 | 0.73534 | 1819.0 | 17.0 | 1790.0 | 37.0 | 1857 | 27 | 1857.0 | 27.0 | 3.6 | Single Age |
| 15HP80_53 | 84.6 | 0.80 | 5.28000 | 0.17000 | 0.33600 | 0.01400 | 0.81550 | 1866.0 | 27.0 | 1866.0 | 66.0 | 1860 | 40 | 1860.0 | 40.0 | 0.3 | Single Age |
| 15HP80_54 | 389 | 3.47 | 1.80600 | 0.03000 | 0.17540 | 0.00300 | 0.31197 | 1049.0 | 11.0 | 1042.0 | 16.0 | 1053 | 39 | 1053.0 | 39.0 | 1.0 | Single Age |
| 15HP80_55 | 979 | 2.56 | 0.76000 | 0.01300 | 0.08750 | 0.00140 | 0.64858 | 573.5 | 7.6 | 540.6 | 8.0 | 722 | 30 | 540.6 | 8.0 | 5.7 | Single Age |
| 15HP80_56 | 638 | 4.75 | 0.89400 | 0.01300 | 0.10480 | 0.00150 | 0.49146 | 648.7 | 7.3 | 642.3 | 8.7 | 664 | 32 | 642.3 | 8.7 | 1.0 | Single Age |
| 15HP80_57 | 304 | 5.86 | 0.58500 | 0.01700 | 0.07420 | 0.00130 | 0.52043 | 468.0 | 11.0 | 461.6 | 7.5 | 497 | 61 | 461.6 | 7.5 | 1.4 | Single Age |
| 15HP80_58 | 92.9 | 1.79 | 10.46000 | 0.19000 | 0.46420 | 0.00940 | 0.71644 | 2477.0 | 17.0 | 2463.0 | 43.0 | 2506 | 27 | 2506.0 | 27.0 | 1.7 | Single Age |
| 15HP80_59 | 470 | 4.53 | 5.24000 | 0.05100 | 0.33450 | 0.00370 | 0.64757 | 1858.6 | 8.3 | 1860.0 | 18.0 | 1851 | 17 | 1851.0 | 17.0 | 0.5 | Single Age |
| 15HP80_60 | 0.0017 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| 15HP80_61 | 265 | 2.99 | 9.93000 | 0.20000 | 0.45370 | 0.00980 | 0.79045 | 2431.0 | 20.0 | 2415.0 | 42.0 | 2448 | 25 | 2448.0 | 25.0 | 1.3 | Single Age |
| 15HP80_62 | 144.6 | 0.26 | 10.67000 | 0.12000 | 0.46930 | 0.00570 | 0.70126 | 2495.0 | 11.0 | 2480.0 | 25.0 | 2502 | 14 | 2502.0 | 14.0 | 0.9 | Single Age |
| 15HP80_63 | 668 | 1.91 | 0.74110 | 0.00920 | 0.09125 | 0.00095 | 0.39896 | 563.6 | 5.6 | 562.8 | 5.6 | 570 | 31 | 562.8 | 5.6 | 0.1 | Single Age |
| 15HP80_64 | 68.2 | 1.05 | 6.42000 | 0.21000 | 0.34100 | 0.01100 | 0.53402 | 2036.0 | 30.0 | 1888.0 | 52.0 | 2202 | 50 | 2202.0 | 50.0 | 14.3 | Single Age |
| 15HP80_65 | 144 | 2.10 | 6.58000 | 0.37000 | 0.37800 | 0.02700 | 0.88628 | 2053.0 | 50.0 | 2110.0 | 140.0 | 2030 | 56 | 2030.0 | 56.0 | 3.9 | Single Age |
| 15HP80_66 | 82 | 1.68 | 1.59000 | 0.11000 | 0.15900 | 0.01200 | 0.80975 | 956.0 | 42.0 | 948.0 | 64.0 | 977 | 84 | 977.0 | 84.0 | 3.0 | Single Age |
| 15HP80_67 | 119 | 55.90 | 4.08000 | 0.33000 | 0.29600 | 0.03200 | 0.83572 | 1639.0 | 66.0 | 1690.0 | 160.0 | 1700 | 110 | 1700.0 | 110.0 | 0.6 | Single Age |
| 15HP80_68 | 207 | 17.20 | 0.91000 | 0.13000 | 0.10300 | 0.01500 | 0.95050 | 632.0 | 70.0 | 629.0 | 85.0 | 678 | 96 | DISC | DISC | 0.5 | Single Age |
| 15HP80_70 | 252 | 2.69 | 0.87400 | 0.05700 | 0.10410 | 0.00660 | 0.66437 | 639.0 | 30.0 | 637.0 | 39.0 | 630 | 110 | 637.0 | 39.0 | 0.3 | Single Age |
| 15HP80_71 | 104 | 4.52 | 4.97000 | 0.52000 | 0.32400 | 0.03500 | 0.88757 | 1785.0 | 93.0 | 1790.0 | 170.0 | 1810 | 80 | 1810.0 | 80.0 | 1.1 | Single Age |
| 15HP80_72 | 71.9 | 21.90 | 0.54800 | 0.04000 | 0.06700 | 0.00430 | 0.75099 | 441.0 | 26.0 | 417.0 | 26.0 | 560 | 110 | 417.0 | 26.0 | 5.4 | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP80_73 | 29.1 | 0.69 | 1.97000 | 0.14000 | 0.10080 | 0.00550 | 0.59321 | 1098.0 | 47.0 | 617.0 | 32.0 | 2246 | 98 | DISC | DISC | 43.8 | Single Age |
| 15HP80_75 | 130 | 69.30 | 1.02000 | 0.10000 | 0.11800 | 0.01300 | 0.80529 | 728.0 | 51.0 | 730.0 | 71.0 | 780 | 130 | 730.0 | 71.0 | 0.3 | Single Age |
| 15HP80_76 | 4.76 | 2.03 | 1.97000 | 0.37000 | 0.13400 | 0.01400 | 0.03759 | 1120.0 | 120.0 | 806.0 | 80.0 | 1590 | 440 | DISC | DISC | 28.0 | Single Age |
| 15HP80_77 | 197 | 9.15 | 4.30000 | 0.40000 | 0.26500 | 0.02000 | 0.78888 | 1681.0 | 78.0 | 1510.0 | 100.0 | 1880 | 130 | 1880.0 | 130.0 | 19.7 | Single Age |
| 15HP80_78 | 0.0075 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| 15HP80_79 | 52.4 | 4.82 | 3.39000 | 0.38000 | 0.25600 | 0.02800 | 0.90959 | 1455.0 | 87.0 | 1450.0 | 140.0 | 1500 | 89 | 1500.0 | 89.0 | 3.3 | Single Age |
| 15HP80_80 | 100 | 3.57 | 2.04000 | 0.18000 | 0.19200 | 0.01100 | 0.75656 | 1134.0 | 58.0 | 1131.0 | 62.0 | 1119 | 96 | 1119.0 | 96.0 | 1.1 | Single Age |
| 15HP80_81 | 354 | 21.19 | 1.54300 | 0.02600 | 0.15810 | 0.00240 | 0.05498 | 947.0 | 10.0 | 946.0 | 13.0 | 941 | 34 | 941.0 | 34.0 | 0.5 | Single Age |
| 15HP80_82 | 236 | 3.06 | 1.51600 | 0.06600 | 0.15810 | 0.00800 | 0.89579 | 939.0 | 28.0 | 943.0 | 44.0 | 934 | 47 | 934.0 | 47.0 | 1.0 | Single Age |
| 15HP80_83 | 116.3 | 2.12 | 0.99000 | 0.04100 | 0.10290 | 0.00280 | 0.37159 | 696.0 | 21.0 | 631.0 | 16.0 | 945 | 78 | 631.0 | 16.0 | 9.3 | Single Age |
| 15HP80_84 | 569 | 1.98 | 1.35900 | 0.02100 | 0.14430 | 0.00250 | 0.71884 | 870.8 | 9.0 | 868.0 | 14.0 | 876 | 27 | 876.0 | 27.0 | 0.9 | Single Age |
| 15HP80_85 | -4.5E-05 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| 15HP80_86 | 72 | 0.65 | 1.50200 | 0.04200 | 0.15260 | 0.00380 | 0.55477 | 928.0 | 17.0 | 918.0 | 22.0 | 1000 | 53 | 1000.0 | 53.0 | 8.2 | Single Age |
| 15HP80_87 | 0.0018 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| 15HP80_88 | 105.5 | 0.87 | 1.26200 | 0.03000 | 0.13720 | 0.00230 | 0.23115 | 827.0 | 13.0 | 828.0 | 13.0 | 811 | 54 | 828.0 | 13.0 | 0.1 | Single Age |
| 15HP80_89 | 3420 | 3.40 | 0.61990 | 0.00700 | 0.07881 | 0.00096 | 0.71146 | 490.2 | 4.5 | 489.0 | 5.8 | 496 | 20 | 489.0 | 5.8 | 0.2 | Single Age |
| 15HP80_90 | -4.538E-05 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| 15HP80_91 | 6870 | 8.57 | 1.64700 | 0.02800 | 0.16490 | 0.00300 | 0.87598 | 988.0 | 11.0 | 984.0 | 17.0 | 993 | 17 | 993.0 | 17.0 | 0.9 | Single Age |
| 15HP80_92 | 2010 | 12.79 | 1.18300 | 0.01400 | 0.12890 | 0.00150 | 0.75233 | 793.2 | 6.4 | 782.9 | 8.9 | 816 | 19 | 782.9 | 8.9 | 1.3 | Single Age |
| 15HP80_93 | 409 | 6.17 | 1.71900 | 0.02100 | 0.16940 | 0.00180 | 0.24172 | 1015.2 | 7.8 | 1008.9 | 9.9 | 1026 | 31 | 1026.0 | 31.0 | 1.7 | Single Age |
| 15HP80_94 | 333 | 1.26 | 1.70300 | 0.03200 | 0.17180 | 0.00350 | 0.56462 | 1011.0 | 13.0 | 1022.0 | 19.0 | 975 | 37 | 975.0 | 37.0 | 4.8 | Single Age |
| 15HP80_95 | 76.2 | 0.46 | 4.24000 | 0.09800 | 0.29120 | 0.00540 | 0.38991 | 1682.0 | 18.0 | 1647.0 | 27.0 | 1727 | 43 | 1727.0 | 43.0 | 4.6 | Single Age |
| 15HP80_96 | 0.019 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| 15HP80_97 | 0.0025 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| 15HP80_98 | 1041 | 2.21 | 3.65500 | 0.06100 | 0.25730 | 0.00470 | 0.80576 | 1563.0 | 14.0 | 1475.0 | 24.0 | 1681 | 21 | 1681.0 | 21.0 | 12.3 | Single Age |
| 15HP80_99 | 0.0046 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| 15HP80_100 | 500 | 7.28 | 1.32100 | 0.02600 | 0.13860 | 0.00210 | 0.12798 | 854.0 | 11.0 | 837.0 | 12.0 | 887 | 40 | 837.0 | 12.0 | 2.0 | Single Age |
| 15HP80_101 | 147.8 | 0.92 | 1.91600 | 0.04400 | 0.18030 | 0.00350 | 0.55737 | 1090.0 | 15.0 | 1068.0 | 19.0 | 1150 | 39 | 1150.0 | 39.0 | 7.1 | Single Age |
| 15HP80_102 | 1654 | 16.90 | 1.54000 | 0.02300 | 0.15940 | 0.00300 | 0.71979 | 948.7 | 9.8 | 953.0 | 17.0 | 939 | 30 | 939.0 | 30.0 | 1.5 | Rim |
| 15HP80_102 | 3110 | 3.80 | 3.16100 | 0.07100 | 0.25210 | 0.00620 | 0.94363 | 1446.0 | 17.0 | 1449.0 | 32.0 | 1450 | 16 | 1450.0 | 16.0 | 0.1 | Core |
| 15HP80_103 | 48.1 | 0.34 | 1.40200 | 0.04700 | 0.14470 | 0.00380 | 0.22252 | 889.0 | 20.0 | 871.0 | 22.0 | 945 | 80 | 945.0 | 80.0 | 7.8 | Single Age |
| 15HP80_104 | 256 | 0.79 | 1.56400 | 0.02300 | 0.16030 | 0.00190 | 0.42604 | 956.4 | 9.2 | 958.0 | 10.0 | 964 | 29 | 964.0 | 29.0 | 0.6 | Single Age |
| 15HP80_105 | 1009 | 9.12 | 5.24200 | 0.07000 | 0.33130 | 0.00560 | 0.77283 | 1862.0 | 12.0 | 1844.0 | 27.0 | 1884 | 18 | 1884.0 | 18.0 | 2.1 | Single Age |
| 15HP80_106 | 2309 | 5.01 | 0.60300 | 0.02400 | 0.07750 | 0.00350 | 0.72125 | 481.0 | 15.0 | 481.0 | 21.0 | 419 | 67 | 481.0 | 21.0 | 0.0 | Rim |
| 15HP80_106 | 217 | 2.21 | 0.81600 | 0.04000 | 0.09970 | 0.00480 | 0.54183 | 605.0 | 22.0 | 613.0 | 28.0 | 640 | 120 | 613.0 | 28.0 | 1.3 | Core |
| 15HP80_107 | 1198 | 2.34 | 5.11000 | 0.12000 | 0.33100 | 0.00760 | 0.80749 | 1841.0 | 20.0 | 1842.0 | 37.0 | 1838 | 28 | 1838.0 | 28.0 | 0.2 | Single Age |
| 15HP80_108 | 393 | 1.32 | 9.62000 | 0.12000 | 0.43840 | 0.00530 | 0.74985 | 2399.0 | 11.0 | 2343.0 | 24.0 | 2453 | 16 | 2453.0 | 16.0 | 4.5 | Single Age |
| 15HP80_109 | 1376 | 7.94 | 11.21000 | 0.24000 | 0.48220 | 0.00980 | 0.73059 | 2539.0 | 20.0 | 2535.0 | 43.0 | 2549 | 20 | 2549.0 | 20.0 | 0.5 | Single Age |
| 15HP80_110 | 0.0039 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |

Table 6 Foreland basin zircon U-Pb results (continued)

| Sample_Grain # | [U] ppm | U/Th | 207/235 | 2σ error | 206/238 | 2σ error | RHO | 207/235 Age (Ma) | 2σ error | 206/238 Age (Ma) | 2σ error | 207/206 Age | 2σ error | Best age (Ma) | 2σ error | Percent Discordance* | Rim/Core |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP80_111 | 179 | 0.43 | 0.66300 | 0.01400 | 0.08340 | 0.00130 | 0.06831 | 516.9 | 8.2 | 516.4 | 7.9 | 492 | 55 | 516.4 | 7.9 | 0.1 | Single Age |
| 15HP80_112 | 480 | 3.13 | 1.46800 | 0.01600 | 0.15080 | 0.00130 | 0.19341 | 916.8 | 6.7 | 905.6 | 7.5 | 954 | 29 | 954.0 | 29.0 | 5.1 | Single Age |
| 15HP80_113 | 0.0083 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| 15HP80_114 | 0.0019 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| 15HP80_115 | 0.09 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| 15HP80_116 | 0.0051 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| 15HP80_117 | 173 | 1.10 | 1.81900 | 0.03500 | 0.17510 | 0.00340 | 0.41125 | 1051.0 | 12.0 | 1042.0 | 18.0 | 1099 | 37 | 1099.0 | 37.0 | 5.2 | Single Age |
| 15HP80_118 | 358 | 1.05 | 2.04800 | 0.02600 | 0.18830 | 0.00170 | 0.38845 | 1130.8 | 8.8 | 1112.2 | 9.2 | 1153 | 24 | 1153.0 | 24.0 | 3.5 | Single Age |
| 15HP80_119 | 304 | 4.73 | 6.78000 | 0.25000 | 0.37900 | 0.01900 | 0.57583 | 2073.0 | 33.0 | 2060.0 | 87.0 | 2094 | 66 | 2094.0 | 66.0 | 1.6 | Single Age |
| 15HP80_120 | 0.0037 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Single Age |
| 15HP80_121 | 279 | 1.00 | 10.91000 | 0.40000 | 0.47400 | 0.01800 | 0.83303 | 2517.0 | 33.0 | 2493.0 | 80.0 | 2492 | 43 | 2492.0 | 43.0 | 0.0 | Single Age |
| 15HP80_122 | 506 | 3.64 | 10.81000 | 0.22000 | 0.47300 | 0.01000 | 0.70472 | 2509.0 | 18.0 | 2492.0 | 44.0 | 2506 | 25 | 2506.0 | 25.0 | 0.6 | Single Age |

Table 7 Foreland basin (U-Th)/He and U-Pb double dating results

| Sample | Formation | Latitude | Longitude | Sample | U-Pb Age (Ma) | U-Pb Error (Ma) | (U-Th)/He Age (Ma) | (U-Th)/He Error (Ma) | U (ppm) | Th (ppm) | 147Sm (ppm) | [U]e | Th/U | He (nmol/g) | mass (ug) | Ft | ESR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15HP41 | Upper Dharamsala | 31°50'43.39"N | 76°47'17.38"E | z15HP41-26 | 390.00 | 22.00 | 19.7 | 1.58 | 1664.4 | 44.9 | 2.6 | 1674.8 | 0.03 | 126.1 | 2.35 | 0.71 | 37.86 |
| | | | | z15HP41-80 | 465.30 | 8.60 | 16.8 | 1.34 | 726.8 | 37.9 | 3.6 | 735.6 | 0.05 | 48.7 | 3.43 | 0.73 | 42.01 |
| | | | | z15HP41-63 | 696.00 | 16.00 | 17.8 | 1.42 | 340.6 | 113.1 | 5.7 | 366.7 | 0.33 | 26.2 | 3.76 | 0.74 | 45.07 |
| | | | | z15HP41-117 | 783.00 | 10.00 | 20.8 | 1.67 | 338.4 | 191.0 | 2.8 | 382.4 | 0.56 | 30.9 | 2.73 | 0.72 | 40.88 |
| | | | | z15HP41-50 | 817.00 | 12.00 | 21.8 | 1.74 | 86.7 | 59.8 | 2.1 | 100.5 | 0.69 | 8.5 | 2.94 | 0.72 | 41.32 |
| | | | | z15HP41-101 | 828.00 | 14.00 | 20.8 | 1.67 | 125.3 | 53.4 | 1.9 | 137.6 | 0.43 | 12.4 | 8.41 | 0.80 | 59.24 |
| | | | | z15HP41-40 | 901.00 | 42.00 | 21.1 | 1.68 | 110.4 | 45.9 | 1.1 | 120.9 | 0.42 | 9.5 | 1.87 | 0.69 | 36.39 |
| | | | | z15HP41-42 | 941.00 | 25.00 | 22.9 | 1.83 | 146.8 | 74.2 | 9.5 | 164.0 | 0.51 | 15.0 | 3.43 | 0.74 | 44.04 |
| | | | | z15HP41-87 | 876.00 | 80.00 | 14.0 | 1.12 | 164.8 | 23.1 | 0.5 | 170.1 | 0.14 | 9.3 | 2.67 | 0.72 | 40.19 |
| | | | | z15HP41-60 | 1003.00 | 33.00 | 38.1 | 3.05 | 159.7 | 122.7 | 8.7 | 188.0 | 0.77 | 27.4 | 2.53 | 0.70 | 39.31 |
| | | | | z15HP41-37 | 1057.00 | 78.00 | 37.7 | 3.02 | 77.5 | 54.7 | 4.8 | 90.1 | 0.71 | 13.6 | 3.33 | 0.74 | 44.26 |
| | | | | z15HP41-38 | 1033.00 | 29.00 | 22.9 | 1.83 | 276.9 | 154.6 | 12.1 | 312.5 | 0.56 | 28.0 | 3.10 | 0.73 | 42.23 |
| | | | | z15HP41-41 | 1705.00 | 27.00 | 19.6 | 1.57 | 160.8 | 45.4 | 2.1 | 171.3 | 0.28 | 12.5 | 1.96 | 0.69 | 36.45 |
| | | | | z15HP41-1 | 1766.00 | 18.00 | 21.2 | 1.69 | 199.8 | 110.6 | 4.3 | 225.3 | 0.55 | 17.7 | 1.91 | 0.69 | 36.53 |
| | | | | z15HP41-10 | 2481.00 | 20.00 | 48.5 | 3.88 | 71.0 | 103.4 | 11.3 | 94.9 | 1.46 | 17.7 | 2.69 | 0.71 | 40.45 |
| | | | | z15HP41-102 | 2496.00 | 27.00 | 15.1 | 1.21 | 15.7 | 15.9 | 1.4 | 19.3 | 1.02 | 1.2 | 5.43 | 0.77 | 51.51 |
| | | | | z15HP41-59 | 2571.00 | 17.00 | 18.7 | 1.49 | 201.5 | 68.8 | 6.2 | 217.3 | 0.34 | 16.1 | 3.34 | 0.74 | 43.51 |
| SW02 | Upper Dharamsala | 31°13'34.74"N | 76°46'34.38"E | zSW02-97 | 1121.00 | 17.00 | 15.2 | 1.22 | 169.4 | 48.7 | 0.7 | 180.6 | 0.29 | 11.8 | 7.29 | 0.80 | 57.39 |
| | | | | zSW02-39 | 476.40 | 6.70 | 16.6 | 1.33 | 1065.1 | 241.1 | 2.4 | 1120.6 | 0.23 | 83.0 | 14.97 | 0.83 | 68.08 |
| | | | | zSW02-116 | 809.40 | 7.60 | 16.7 | 1.33 | 420.8 | 175.0 | 8.2 | 461.1 | 0.42 | 34.2 | 12.63 | 0.82 | 67.83 |
| | | | | zSW02-99 | 671.00 | 8.60 | 17.1 | 1.37 | 142.4 | 242.5 | 15.7 | 198.3 | 1.70 | 14.7 | 9.38 | 0.80 | 60.57 |
| | | | | zSW02-44 | 957.00 | 19.00 | 18.3 | 1.46 | 236.1 | 139.0 | 2.8 | 268.1 | 0.59 | 20.4 | 5.38 | 0.77 | 50.97 |
| | | | | zSW02-16 | 765.70 | 9.80 | 18.3 | 1.47 | 404.3 | 166.3 | 3.1 | 442.6 | 0.41 | 36.3 | 13.27 | 0.83 | 69.13 |
| | | | | zSW02-19 | 878.00 | 17.00 | 20.4 | 1.63 | 735.7 | 346.6 | 1.9 | 815.5 | 0.47 | 75.4 | 16.46 | 0.84 | 74.57 |
| | | | | zSW02-22 | 473.80 | 6.10 | 20.8 | 1.66 | 591.8 | 92.3 | 1.8 | 613.0 | 0.16 | 57.4 | 15.36 | 0.83 | 71.25 |
| | | | | zSW02-47 | 589.20 | 7.60 | 20.9 | 1.67 | 130.4 | 130.3 | 2.9 | 160.4 | 1.00 | 14.9 | 11.95 | 0.82 | 66.59 |
| | | | | zSW02-84 | 857.00 | 26.00 | 21.5 | 1.72 | 445.5 | 310.6 | 1.4 | 517.0 | 0.70 | 50.5 | 17.05 | 0.84 | 75.42 |
| | | | | zSW02-56 | 2574.00 | 15.00 | 21.6 | 1.73 | 189.7 | 84.2 | 1.8 | 209.1 | 0.44 | 19.2 | 6.24 | 0.79 | 55.13 |
| | | | | zSW02-4 | 704.00 | 12.00 | 22.8 | 1.83 | 120.7 | 94.3 | 10.6 | 142.5 | 0.78 | 14.6 | 14.83 | 0.83 | 69.42 |
| | | | | zSW02-42 | 1262.00 | 87.00 | 23.3 | 1.87 | 38.4 | 34.1 | 2.2 | 46.3 | 0.89 | 4.5 | 5.95 | 0.77 | 52.92 |
| | | | | zSW02-105 | 782.00 | 12.00 | 24.9 | 1.99 | 105.0 | 21.9 | 2.0 | 110.1 | 0.21 | 11.4 | 4.66 | 0.77 | 49.69 |
| | | | | zSW02-18 | 1842.00 | 16.00 | 26.6 | 2.13 | 507.9 | 19.8 | 1.3 | 512.5 | 0.04 | 59.9 | 10.13 | 0.81 | 62.06 |
| | | | | zSW02-46 | 1879.00 | 12.00 | 27.0 | 2.16 | 175.4 | 86.7 | 4.1 | 195.4 | 0.49 | 22.2 | 6.50 | 0.78 | 52.53 |
| | | | | zSW02-102 | 2663.00 | 20.00 | 29.6 | 2.37 | 283.0 | 115.5 | 2.1 | 309.6 | 0.41 | 38.8 | 6.27 | 0.78 | 53.98 |
| | | | | zSW02-35 | 811.00 | 10.00 | 30.6 | 2.45 | 142.1 | 50.8 | 3.4 | 153.8 | 0.36 | 21.6 | 19.68 | 0.85 | 78.28 |
| | | | | zSW02-40 | 2417.00 | 17.00 | 36.0 | 2.88 | 76.0 | 65.1 | 3.6 | 91.0 | 0.86 | 14.0 | 6.80 | 0.78 | 55.60 |
| | | | | zSW02-24 | 789.10 | 8.20 | 38.0 | 3.04 | 185.1 | 199.3 | 6.7 | 231.0 | 1.08 | 38.3 | 9.91 | 0.80 | 61.73 |
| | | | | zSW02-33 | 1851.00 | 18.00 | 38.7 | 3.09 | 154.9 | 83.8 | 16.2 | 174.3 | 0.54 | 28.2 | 5.91 | 0.77 | 51.78 |
| | | | | zSW02-79 | 904.00 | 28.00 | 51.9 | 4.15 | 526.0 | 27.6 | 98.4 | 532.9 | 0.05 | 121.7 | 9.83 | 0.81 | 61.68 |
| | | | | zSW02-53 | 845.00 | 13.00 | 55.4 | 4.43 | 133.6 | 64.5 | 1.6 | 148.4 | 0.48 | 35.5 | 8.08 | 0.80 | 58.36 |
| | | | | zSW02-26 | 1058.00 | 37.00 | 134.4 | 10.75 | 91.8 | 39.8 | 3.6 | 101.0 | 0.43 | 61.1 | 12.80 | 0.83 | 68.49 |
| | | | | zSW02-98 | 1844.00 | 14.00 | 178.9 | 14.32 | 257.0 | 156.3 | 2.8 | 293.0 | 0.61 | 226.2 | 6.93 | 0.79 | 56.19 |

Table 7 Foreland basin (U-Th)/He and U-Pb double dating results (continued)

| Sample | Formation | Latitude | Longitude | Sample | U-Pb Age (Ma) | U-Pb Error (Ma) | (U-Th)/He Age (Ma) | (U-Th)/He Error (Ma) | U (ppm) | Th (ppm) | 147Sm (ppm) | [U]e | Th/U | He (nmol/g) | mass (ug) | Ft | ESR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SW01 | Upper Dharamsala | 31°12'41.52"N | 76°38'51.36"E | zSW01-48 | 511.80 | 5.60 | 16.0 | 1.28 | 1128.8 | 100.1 | 0.5 | 1151.8 | 0.09 | 75.5 | 4.96 | 0.76 | 47.38 |
| | | | | zSW01-35 | 926.00 | 41.00 | 16.2 | 1.29 | 62.9 | 43.8 | 0.3 | 73.0 | 0.70 | 4.9 | 4.99 | 0.76 | 49.66 |
| | | | | zSW01-53 | 989.00 | 25.00 | 16.5 | 1.32 | 160.7 | 85.1 | 0.4 | 180.3 | 0.53 | 12.0 | 4.17 | 0.75 | 46.22 |
| | | | | zSW01-97 | 1385.00 | 48.00 | 17.1 | 1.37 | 89.2 | 65.5 | 1.7 | 104.2 | 0.73 | 7.8 | 9.88 | 0.81 | 62.49 |
| | | | | zSW01-18 | 2504.00 | 16.00 | 17.3 | 1.38 | 80.7 | 64.3 | 1.3 | 95.5 | 0.80 | 7.0 | 7.15 | 0.78 | 54.79 |
| | | | | zSW01-8 | 860.00 | 17.00 | 17.7 | 1.42 | 62.7 | 55.8 | 0.5 | 75.5 | 0.89 | 5.7 | 7.07 | 0.78 | 55.48 |
| | | | | zSW01-49 | 1311.00 | 28.00 | 18.4 | 1.47 | 277.1 | 65.7 | 0.4 | 292.2 | 0.24 | 22.9 | 7.11 | 0.79 | 55.58 |
| | | | | zSW01-93 | 1245.00 | 12.00 | 19.2 | 1.54 | 360.2 | 58.3 | 0.7 | 373.7 | 0.16 | 30.7 | 6.60 | 0.79 | 55.05 |
| | | | | zSW01-1 | 1432.00 | 16.00 | 19.4 | 1.55 | 448.5 | 135.0 | 1.4 | 479.6 | 0.30 | 37.2 | 4.29 | 0.74 | 44.23 |
| | | | | zSW01-63 | 886.00 | 26.00 | 20.5 | 1.64 | 176.8 | 71.7 | 0.9 | 193.3 | 0.41 | 16.0 | 4.27 | 0.75 | 46.05 |
| | | | | zSW01-19 | 936.00 | 30.00 | 22.4 | 1.80 | 248.3 | 125.3 | 2.8 | 277.1 | 0.50 | 27.1 | 9.09 | 0.81 | 61.43 |
| | | | | zSW01-105 | 1168.00 | 24.00 | 24.4 | 1.95 | 531.2 | 109.5 | 3.0 | 556.4 | 0.21 | 54.6 | 3.63 | 0.75 | 44.86 |
| | | | | zSW01-44 | 577.50 | 7.30 | 28.3 | 2.26 | 332.3 | 279.5 | 2.4 | 396.7 | 0.84 | 47.1 | 6.02 | 0.77 | 52.82 |
| | | | | zSW01-117 | 2461.00 | 16.00 | 28.3 | 2.26 | 61.8 | 73.0 | 1.2 | 78.7 | 1.18 | 9.2 | 5.60 | 0.76 | 50.91 |
| | | | | zSW01-111 | 662.10 | 6.20 | 38.3 | 3.07 | 150.3 | 96.5 | 0.9 | 172.5 | 0.64 | 27.6 | 5.63 | 0.77 | 51.74 |
| | | | | zSW01-115 | 834.00 | 13.00 | 49.2 | 3.93 | 37.5 | 31.6 | 0.5 | 44.7 | 0.84 | 9.2 | 5.54 | 0.77 | 52.24 |
| | | | | zSW01-108 | 1744.00 | 19.00 | 62.2 | 4.98 | 135.4 | 86.4 | 0.8 | 155.3 | 0.64 | 40.6 | 5.65 | 0.77 | 52.49 |
| | | | | zSW01-101 | 1838.00 | 24.00 | 70.6 | 5.65 | 1066.7 | 65.5 | 0.7 | 1081.7 | 0.06 | 318.1 | 5.67 | 0.77 | 49.37 |
| | | | | zSW01-76 | 561.70 | 9.40 | 147.9 | 11.83 | 457.8 | 137.7 | 0.7 | 489.5 | 0.30 | 309.4 | 6.32 | 0.78 | 54.05 |
| | | | | zSW01-31 | 961.00 | 25.00 | 304.3 | 24.34 | 222.7 | 51.7 | 1.8 | 234.6 | 0.23 | 310.3 | 6.53 | 0.79 | 54.75 |
| | | | | zSW01-71 | 2482.00 | 13.00 | 316.8 | 25.34 | 34.0 | 29.9 | 0.4 | 40.9 | 0.88 | 56.6 | 7.30 | 0.79 | 57.22 |
| | | | | zSW01-73 | 1059.00 | 24.00 | 361.8 | 28.94 | 46.5 | 29.8 | 0.7 | 53.4 | 0.64 | 83.8 | 7.23 | 0.78 | 54.60 |
| 15HP37 | Lower Dharamsala | 31°50'31.70"N | 76°46'16.72"E | z15HP37-63 | 1650.00 | 52.00 | 37.7 | 3.02 | 152.8 | 110.1 | 9.0 | 178.2 | 0.72 | 24.2 | 1.46 | 0.66 | 33.83 |
| | | | | z15HP37-22 | 766.00 | 30.00 | 234.7 | 18.78 | 97.9 | 33.0 | 4.2 | 105.5 | 0.34 | 95.9 | 2.30 | 0.71 | 38.82 |
| | | | | z15HP37-97 | 735.00 | 23.00 | 66.6 | 5.33 | 178.4 | 76.5 | 3.5 | 196.0 | 0.43 | 48.3 | 1.77 | 0.68 | 35.76 |
| | | | | z15HP37-35 | 772.00 | 18.00 | 36.9 | 2.95 | 46.2 | 35.6 | 0.6 | 54.4 | 0.77 | 8.0 | 3.32 | 0.73 | 43.74 |
| | | | | z15HP37-79 | 802.00 | 23.00 | 24.4 | 1.95 | 284.2 | 196.7 | 12.5 | 329.5 | 0.69 | 31.3 | 2.78 | 0.72 | 41.26 |
| | | | | z15HP37-106 | 829.00 | 18.00 | 24.1 | 1.92 | 388.6 | 185.4 | 9.8 | 431.3 | 0.48 | 40.1 | 2.61 | 0.71 | 40.38 |
| | | | | z15HP37-29 | 879.00 | 36.00 | 21.2 | 1.70 | 167.7 | 42.0 | 1.5 | 177.4 | 0.25 | 13.7 | 1.84 | 0.67 | 34.40 |
| | | | | z15HP37-45 | 905.00 | 54.00 | 21.2 | 1.70 | 210.7 | 55.2 | 2.8 | 223.4 | 0.26 | 18.0 | 2.44 | 0.70 | 37.91 |
| | | | | z15HP37-19 | 1723.00 | 22.00 | 19.8 | 1.58 | 263.4 | 124.8 | 2.8 | 292.2 | 0.47 | 23.0 | 3.65 | 0.74 | 44.02 |
| | | | | z15HP37-96 | 1009.00 | 44.00 | 36.4 | 2.91 | 129.8 | 40.0 | 4.0 | 139.0 | 0.31 | 19.6 | 2.45 | 0.72 | 40.30 |
| | | | | z15HP37-52 | 1868.00 | 17.00 | 22.4 | 1.79 | 181.1 | 63.6 | 2.8 | 195.8 | 0.35 | 16.7 | 2.21 | 0.70 | 38.27 |
| | | | | z15HP37-102 | 1366.00 | 21.00 | 44.5 | 3.56 | 310.5 | 198.2 | 13.0 | 356.2 | 0.64 | 57.2 | 1.55 | 0.67 | 34.05 |
| | | | | z15HP37-2 | 1616.00 | 33.00 | 24.3 | 1.95 | 378.3 | 71.5 | 6.3 | 394.8 | 0.19 | 37.2 | 2.42 | 0.72 | 39.97 |
| | | | | z15HP37-88 | 2485.00 | 27.00 | 19.3 | 1.55 | 85.9 | 109.0 | 3.5 | 111.0 | 1.27 | 8.9 | 5.32 | 0.77 | 51.35 |
| | | | | z15HP37-33 | 936.00 | 25.00 | 34.0 | 2.72 | 157.6 | 105.6 | 5.4 | 181.9 | 0.67 | 23.3 | 2.17 | 0.69 | 37.74 |
| | | | | z15HP37-14 | 1113.00 | 46.00 | 108.5 | 8.68 | 79.6 | 37.9 | 2.6 | 88.3 | 0.48 | 38.3 | 3.97 | 0.73 | 43.50 |
| | | | | z15HP37-98 | 1045.00 | 41.00 | 21.7 | 1.73 | 123.9 | 80.4 | 4.0 | 142.4 | 0.65 | 12.4 | 3.67 | 0.74 | 45.18 |
| | | | | z15HP37-44 | 1373.00 | 60.00 | 20.9 | 1.67 | 111.2 | 86.1 | 5.8 | 131.0 | 0.77 | 10.1 | 2.50 | 0.68 | 36.41 |
| | | | | z15HP37-99 | 2724.00 | 45.00 | 21.2 | 1.70 | 306.3 | 156.2 | 0.8 | 342.3 | 0.51 | 26.6 | 1.72 | 0.68 | 35.10 |
| | | | | z15HP37-30 | 2915.00 | 34.00 | 41.1 | 3.29 | 41.9 | 60.3 | 4.1 | 55.8 | 1.44 | 9.1 | 3.37 | 0.73 | 44.37 |

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